Jan Delaval

110348

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sabiha Ozzi Examiner #: 74141 Date: 12/11/03

Art Unit: 1616 Phone Number 30 5-3910 Serial Number: 09/937,274

Mail Box and Bldg/Room Location: 2D19 Results Format Preferred (circle): PAPER DISK E-MAIL

3807

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Orally active 7-alkyl androgen

Inventors (please provide full names): Van der Louw, Jaap et al

Earliest Priority Filing Date: WO 00/59920, 4/6/1999

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the steroid of formula (I) in Cl 1.

7-position is occupied by Subs. R2

****

STAFF USE ONLY

Searcher: _____

Searcher Phone #: 4455

Searcher Location: _____

Date Searcher Picked Up: 12/16

Date Completed: 12/16

Searcher Prep & Review Time: _____

Clerical Prep Time: 20

Online Time: +50

Type of Search

NA Sequence (#) _____

AA Sequence (#) _____

Structure (#) ✓

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN ✓

Dialog _____

Questel/Orbit _____

Dr.Link _____

Lexis/Nexis _____

Sequence Systems _____

WWW/Internet _____

Other (specify) _____

PTO-1590 (8-01)

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=> fil reg
FILE 'REGISTRY' ENTERED AT 09:44:21 ON 16 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   15 DEC 2003  HIGHEST RN 627458-65-5
DICTIONARY FILE UPDATES:  15 DEC 2003  HIGHEST RN 627458-65-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d sta que l40
L14           88 SEA FILE=REGISTRY ABB=ON  PLU=ON  (105-53-3/BI OR 116506-60-6/B
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                 153004-23-0/BI OR 213889-77-1/BI OR 213890-36-9/BI OR 21800-83-
                 9/BI OR 2590-41-2/BI OR 293303-46-5/BI OR 293303-47-6/BI OR
                 300542-15-8/BI OR 300542-16-9/BI OR 300542-17-0/BI OR 300542-18
                 -1/BI OR 300542-19-2/BI OR 300542-20-5/BI OR 300542-21-6/BI OR
                 300542-22-7/BI OR 300542-23-8/BI OR 300542-24-9/BI OR 300542-25
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                 300542-29-4/BI OR 300542-30-7/BI OR 300542-31-8/BI OR 300542-32
                 -9/BI OR 300542-33-0/BI OR 300542-34-1/BI OR 300542-35-2/BI OR
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                 300542-50-1/BI OR 300542-51-2/BI OR 300542-52-3/BI OR 300542-53
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                 -3/BI OR 300542-61-4/BI OR 300542-62-5/BI OR 300542-63-6/BI OR
                 300542-64-7/BI OR 300542-65-8/BI OR 300542-66-9/BI OR 300542-67
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                 300542-71-6/BI OR 300542-72-7/BI OR 300542-73-8/BI OR 300542-74
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                 300542-78-3/BI OR 300542-79-4/BI OR 300542-80-7/BI OR 300542-81
                 -8/BI OR 300542-82-9/BI OR 300542-83-0/BI OR 32297-29-3/BI OR
                 3536-96-7/BI OR 5293-84-5/BI OR 540-63-6/BI OR 56896-41-4/BI
                 OR 62-23-7/BI OR 74-96-4/BI)
L15           20 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 NOT C5-C6-C6-C6/ES
L16           68 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 NOT L15
L18              STR
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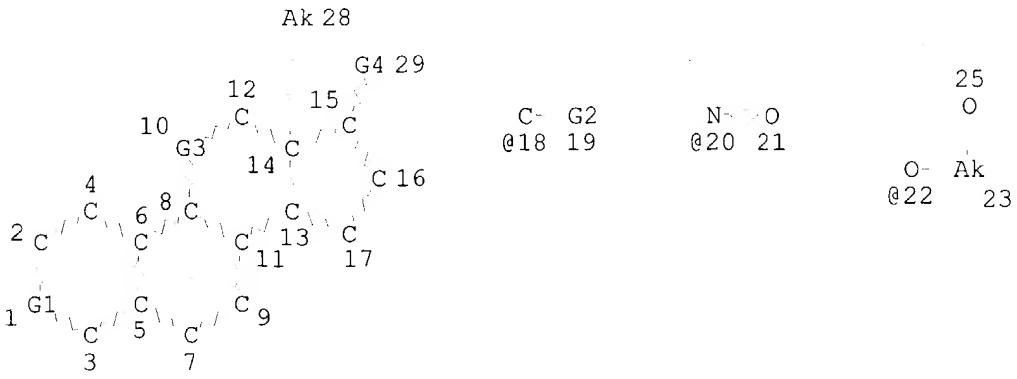
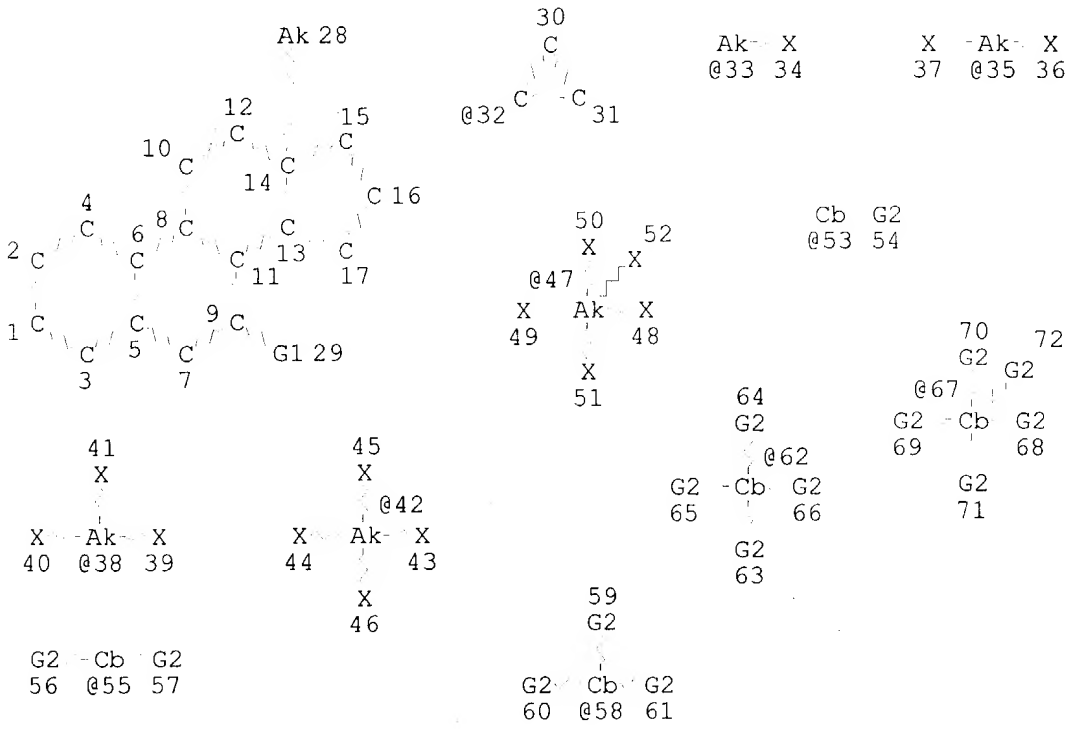


VAR G1=C/18
VAR G2=O/20/AK/22
VAR G3=C/26
VAR G4=O/22
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 28

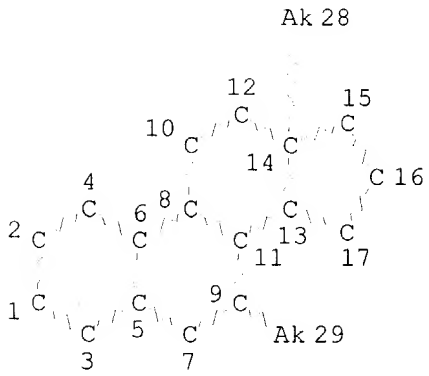
STEREO ATTRIBUTES: NONE
L20 243475 SEA FILE=REGISTRY ABB=ON PLU=ON C5-C6-C6-C6/ES
L22 2571 SEA FILE=REGISTRY SUB=L20 CSS FUL L18
L23 STR



```
VAR G1=AK/33/35/38/42/47/32/53/55/58/62/67
VAR G2=AK/X
NODE ATTRIBUTES:
CONNECT IS M1  RC AT   1
CONNECT IS M1  RC AT  10
CONNECT IS M1  RC AT  15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E3 C  AT  53
ECOUNT  IS E3 C  AT  55
ECOUNT  IS E3 C  AT  58
ECOUNT  IS E3 C  AT  62
ECOUNT  IS E3 C  AT  67

GRAPH ATTRIBUTES:
RSPEC   1  30
NUMBER OF NODES IS  62

STEREO ATTRIBUTES: NONE
L25          253 SEA FILE=REGISTRY SUB=L22 CSS FUL L23
L26           30 SEA FILE=REGISTRY ABB=ON  PLU=ON  L16 AND L25
L28            6 SEA FILE=REGISTRY ABB=ON  PLU=ON  L26 AND C21H30O2
L29            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L28 NOT PROPENYL
L30            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L29 NOT ESTR
L31           29 SEA FILE=REGISTRY ABB=ON  PLU=ON  L26 NOT L30
L34              STR
```



NODE ATTRIBUTES:
CONNECT IS M1 RC AT 1
CONNECT IS M1 RC AT 10
CONNECT IS M1 RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2 C AT 29

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

```
L36          55 SEA FILE=REGISTRY SUB=L25 CSS FUL L34
L37          31 SEA FILE=REGISTRY ABB=ON  PLU=ON  L36 NOT L26
L38           8 SEA FILE=REGISTRY ABB=ON  PLU=ON  L37 AND (C22H30O2 OR
                C23H32O3 OR C21H30O2)
L39           4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L38 AND (116506-62-8/BI OR
                119020-33-6/BI OR 119020-34-7/BI OR 95171-22-5/BI)
L40          33 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L31 OR L39)


=> d his

     (FILE 'HOME' ENTERED AT 08:57:06 ON 16 DEC 2003)
               SET COST OFF

     FILE 'HCAPLUS' ENTERED AT 08:57:16 ON 16 DEC 2003
L1            1 S WO2000-EP2851/AP,PRN
L2            1 S EP99-201070/AP,PRN
L3            1 S L1,L2
                E AKZO/PA,CS
L4         9579 S (AKZO? OR NOBEL?)/PA,CS
                E VAN DER LOUW J/AU
L5           35 S E3,E4
                E VANDER LOUW J/AU
L6            1 S E4
                E VAN DERLOUW J/AU
                E VAN DER LOUW J/AU
                E VANDERLOUW J/AU
                E LEYSEN D/AU
L7           53 S E3-E9
                E BUMA BURSI R/AU
L8            2 S E4
                E BUMABURSI R/AU
                E BURSI R/AU
L9           18 S E3,E4
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                E BURSI /AU
L10          114 S STEROID?/SC,SX AND L4-L9
L11           46 S (ANDROGEN? OR PROGEST?)/CW AND L4-L9
L12           53 S STEROID?/CW AND L4-L9
L13          151 S L10-L12
                SEL RN L3

     FILE 'REGISTRY' ENTERED AT 09:01:04 ON 16 DEC 2003
L14           88 S E1-E88
L15           20 S L14 NOT C5-C6-C6-C6/ES
L16           68 S L14 NOT L15
L17           47 S L16 NOT SI/ELS
L18              STR
L19            4 S L18 CSS
                E C5-C6-C6-C6/ES
L20       243475 S E3
L21           11 S L18 CSS SAM SUB=L20
L22         2571 S L18 CSS FUL SUB=L20
                SAV L22 QAZI937/A
L23              STR L18
L24           15 S L23 CSS SAM SUB=L22
L25          253 S L23 CSS FUL SUB=L22
                SAV L25 QAZI937A/A
L26           30 S L16 AND L25
L27           38 S L16 NOT L26
L28            6 S L26 AND C21H30O2
L29            3 S L28 NOT PROPENYL
L30            1 S L29 NOT ESTR
L31           29 S L26 NOT L30
L32          223 S L25 NOT L26
L33            0 S L32 AND C3/ES
L34              STR L18
L35            3 S L34 CSS SAM SUB=L25
L36           55 S L34 CSS FUL SUB=L25
                SAV L36 QAZI937B/A
L37           31 S L36 NOT L26
L38            8 S L37 AND (C22H30O2 OR C23H32O3 OR C21H30O2)
                SEL RN 5-8
L39            4 S L38 AND E1-E4
L40           33 S L31,L39
L41          192 S L32 NOT L36-L40
L42           67 S L41 NOT 7 METHYL

     FILE 'HCAOLD' ENTERED AT 09:36:32 ON 16 DEC 2003
L43            0 S L30
L44            1 S L40
                SEL AN
                EDIT /AN /OREF

     FILE 'HCAPLUS' ENTERED AT 09:38:06 ON 16 DEC 2003
L45            2 S E5
L46            1 S L45 NOT BURSTEIN ?/AU
L47            2 S L30
L48            8 S L40
L49            9 S L46-L48

     FILE 'USPATFULL, USPAT2' ENTERED AT 09:39:14 ON 16 DEC 2003
L50            4 S L30
L51            6 S L40
L52            6 S L50,L51

     FILE 'REGISTRY' ENTERED AT 09:44:21 ON 16 DEC 2003
```
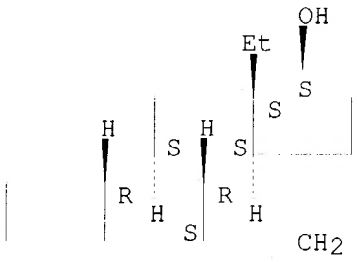

=> d ide can l30

L30 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-25-0** REGISTRY
CN Gon-4-en-3-one, 7-ethenyl-13-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C21 H30 O2**
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

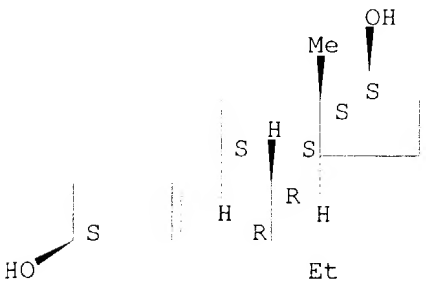
REFERENCE 1: 134:101064

REFERENCE 2: 133:281951

=> d ide can tot l40

L40 ANSWER 1 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-83-0** REGISTRY
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3β,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



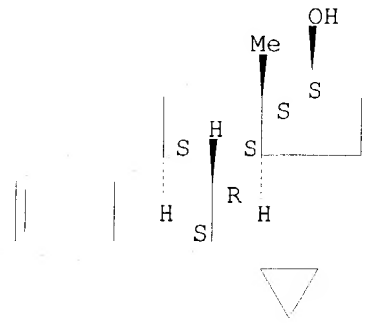
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 2 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-68-1** REGISTRY
CN Estra-1,3,5(10)-triene-3,17-diol, 7-cyclopropyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H28 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



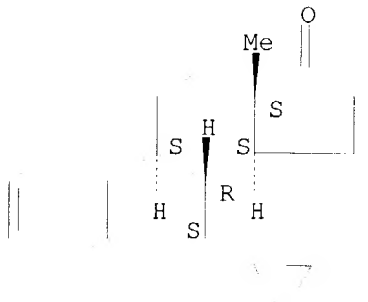
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 3 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-67-0** REGISTRY
CN Estra-1,3,5(10)-trien-17-one, 7-cyclopropyl-3-hydroxy-, (7α)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H26 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



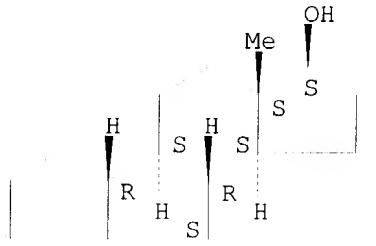
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 4 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-50-1** REGISTRY
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry unknown.



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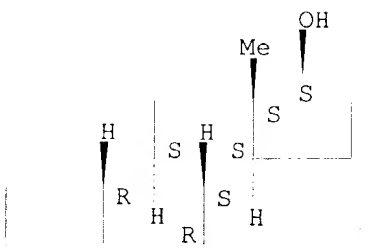
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 5 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-47-6** REGISTRY
CN Estr-4-en-3-one, 7-(2-chloroethenyl)-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H27 Cl O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry unknown.



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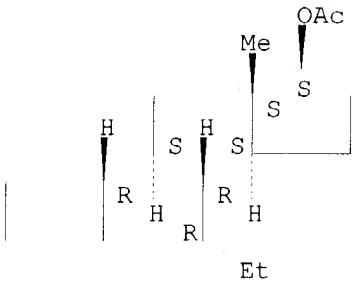
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 6 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-36-3** REGISTRY
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C22 H32 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



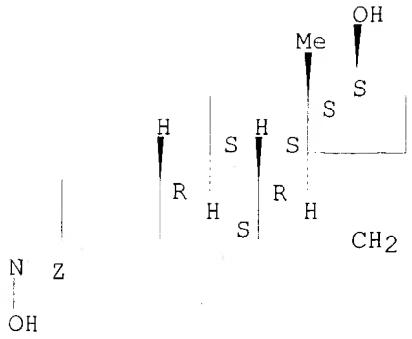
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 7 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-34-1** REGISTRY
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, oxime, (3Z,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H29 N O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry as shown.



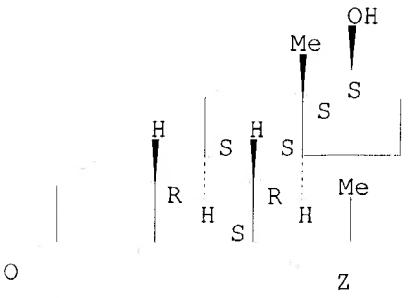
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 8 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-33-0** REGISTRY
CN Estr-4-en-3-one, 17-hydroxy-7-(1Z)-1-propenyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry as shown.



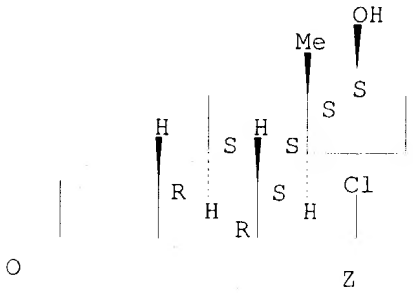
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 9 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-32-9** REGISTRY
CN Estr-4-en-3-one, 7-[(1Z)-2-chloroethenyl]-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H27 Cl O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry as shown.



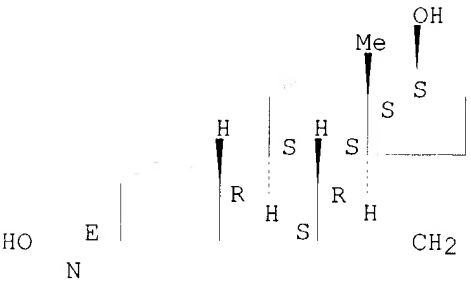
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 10 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-31-8** REGISTRY
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, oxime, (3E,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H29 N O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

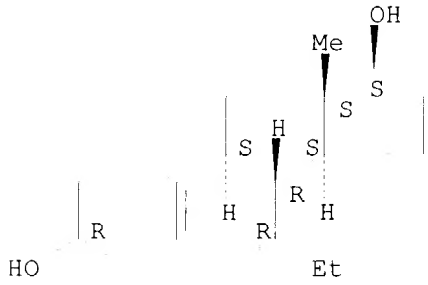
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 11 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-30-7** REGISTRY
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3α,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H32 O2
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



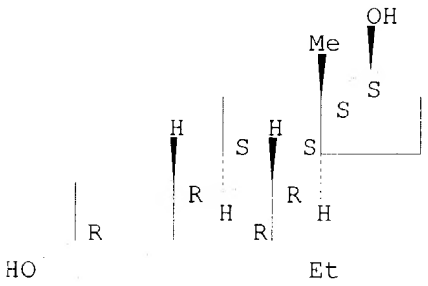
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 12 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-29-4** REGISTRY
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3α,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



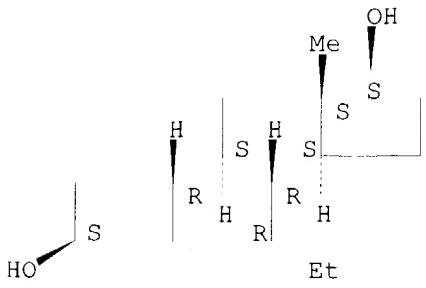
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 13 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-28-3** REGISTRY
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3β,7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



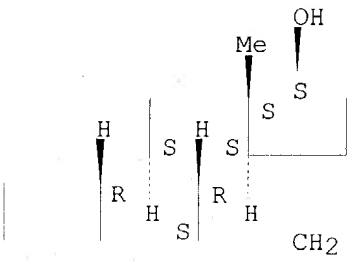
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 14 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-27-2** REGISTRY
CN Estr-4-en-17-ol, 7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



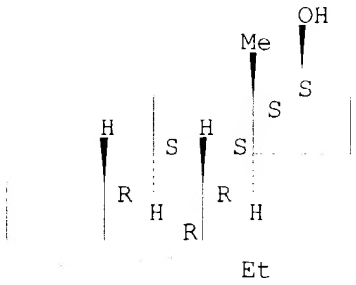
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 15 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-26-1** REGISTRY
CN Estr-4-en-17-ol, 7-ethyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H32 O
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



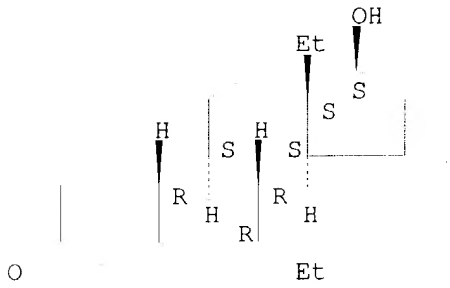
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 16 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-24-9** REGISTRY
CN Gon-4-en-3-one, 7,13-diethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

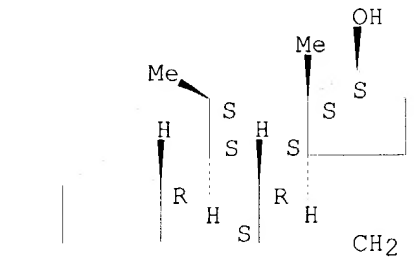
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:101064

REFERENCE 2: 133:281951

L40 ANSWER 17 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-23-8** REGISTRY
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-11-methyl-, (7α,11β,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



O

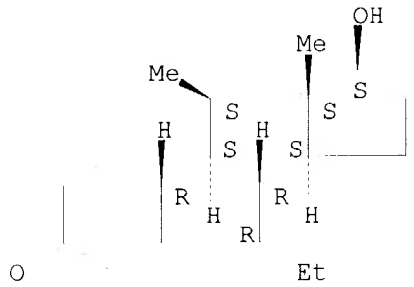
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 18 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-22-7** REGISTRY
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-11-methyl-, (7α,11β,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



O Et

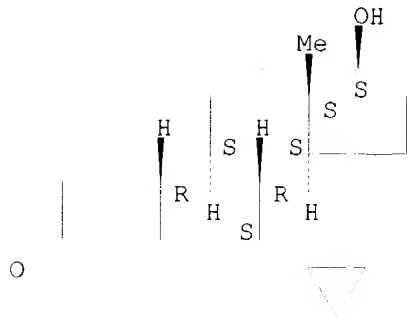
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 19 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-21-6** REGISTRY
CN Estr-4-en-3-one, 7-cyclopropyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



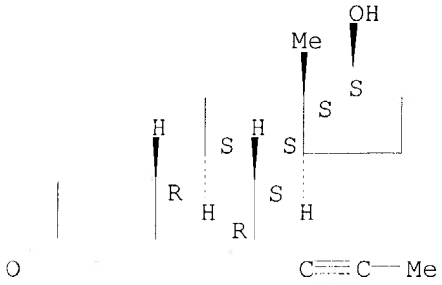
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 20 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-20-5** REGISTRY
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propynyl)-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H28 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



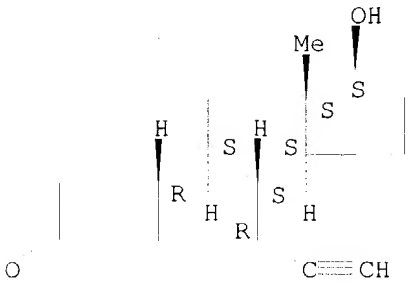
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 21 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-19-2** REGISTRY
CN Estr-4-en-3-one, 7-ethynyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H26 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



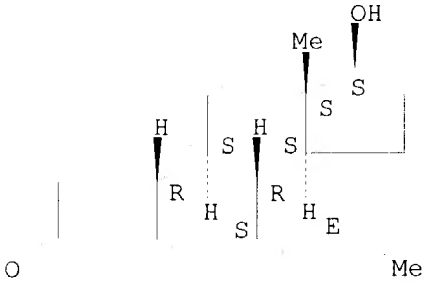
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 22 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-18-1** REGISTRY
CN Estr-4-en-3-one, 17-hydroxy-7-(1E)-1-propenyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



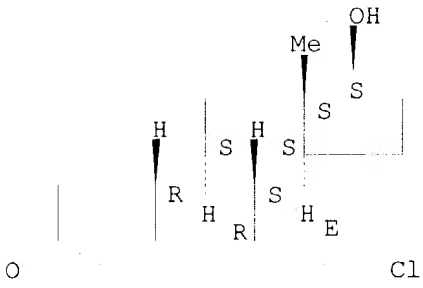
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 23 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-17-0** REGISTRY
CN Estr-4-en-3-one, 7-[(1E)-2-chloroethenyl]-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H27 Cl O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.
Double bond geometry as shown.



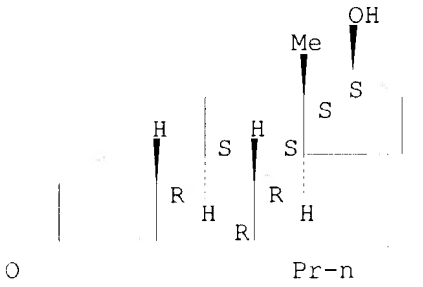
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 24 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-16-9** REGISTRY
CN Estr-4-en-3-one, 17-hydroxy-7-propyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H32 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry. Rotation (+).



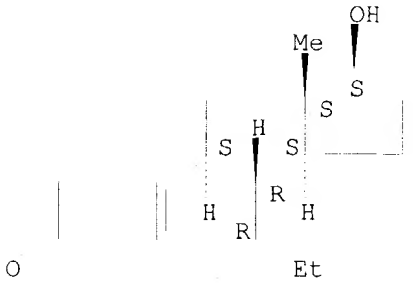
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 25 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **300542-15-8** REGISTRY
CN Estr-5(10)-en-3-one, 7-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H30 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



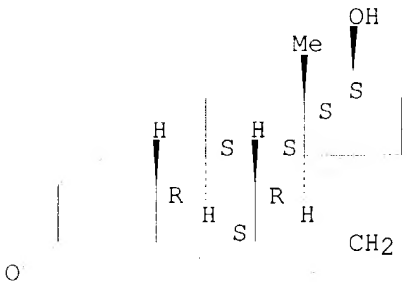
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

L40 ANSWER 26 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **293303-47-6** REGISTRY
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H28 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

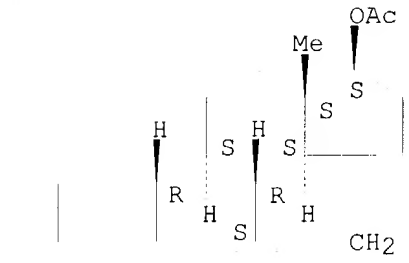
REFERENCE 1: 134:101064

REFERENCE 2: 133:281951

REFERENCE 3: 133:238171

L40 ANSWER 27 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **293303-46-5** REGISTRY
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C22 H30 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

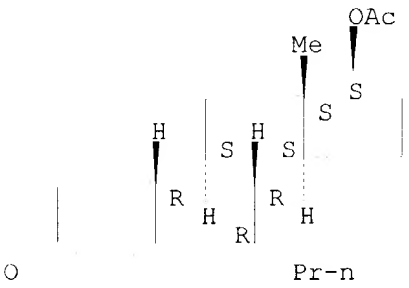
REFERENCE 1: 134:101064

REFERENCE 2: 133:281951

REFERENCE 3: 133:238171

L40 ANSWER 28 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **213889-77-1** REGISTRY
CN Estr-4-en-3-one, 17-(acetyloxy)-7-propyl-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H34 O3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

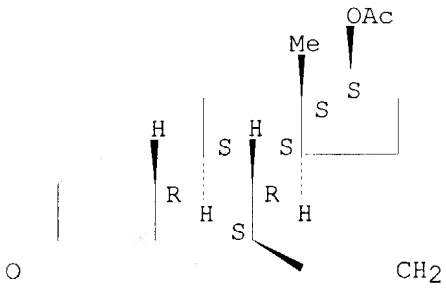
REFERENCE 2: 129:316429

REFERENCE 3: 129:276095

L40 ANSWER 29 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN

RN **119020-34-7** REGISTRY
CN Estr-4-en-3-one, 17-(acetyloxy)-7-(2-propenyl)-, (7β,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C23 H32 O3**
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



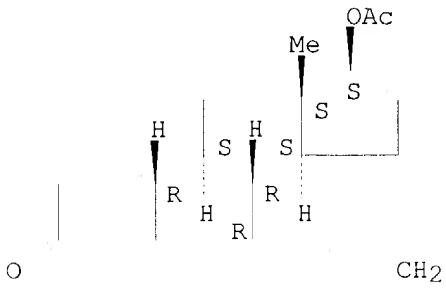
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 110:95601

L40 ANSWER 30 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **119020-33-6** REGISTRY
CN Estr-4-en-3-one, 17-(acetyloxy)-7-(2-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C23 H32 O3**
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

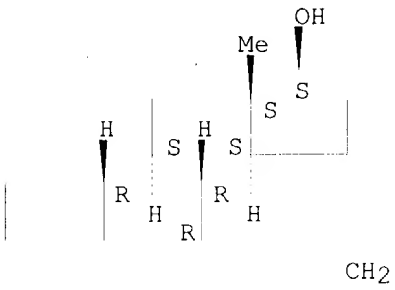
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 110:95601

L40 ANSWER 31 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **116506-62-8** REGISTRY

CN Estr-4-en-3-one, 17-hydroxy-7-(2-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C21 H30 O2**
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT
(*File contains numerically searchable property data)

Absolute stereochemistry.



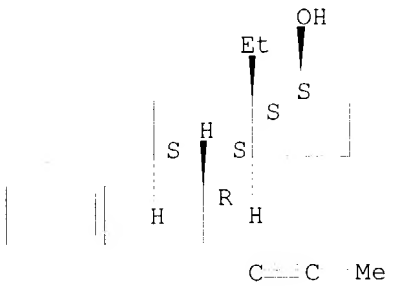
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 109:129426

L40 ANSWER 32 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **95171-22-5** REGISTRY
CN Gon-5(10)-en-3-one, 13-ethyl-17β-hydroxy-7-(1-propynyl)- (7CI) (CA INDEX NAME)
FS STEREOSEARCH
MF **C22 H30 O2**
LC STN Files: CAOLD

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L40 ANSWER 33 OF 33 REGISTRY COPYRIGHT 2003 ACS on STN
RN **32297-29-3** REGISTRY
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Estr-4-en-3-one, 7α-ethyl-17β-hydroxy- (8CI)

FILE COVERS 1907 - 16 Dec 2003 VOL 139 ISS 25
FILE LAST UPDATED: 15 Dec 2003 (20031215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot l49

L49 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:64010 HCAPLUS
DN 134:101064
ED Entered STN: 26 Jan 2001
TI Preparation of orally active androgens
IN Loozen, Hubert Jan Jozef; Leysen, Dirk; Van der Louw, Jaap
PA Akzo Nobel N.V., Neth.
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07J001-00
ICS A61K031-565; A61P005-26
CC 32-3 (Steroids)
Section cross-reference(s): 1
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001005806	A1	20010125	WO 2000-EP6544	20000710
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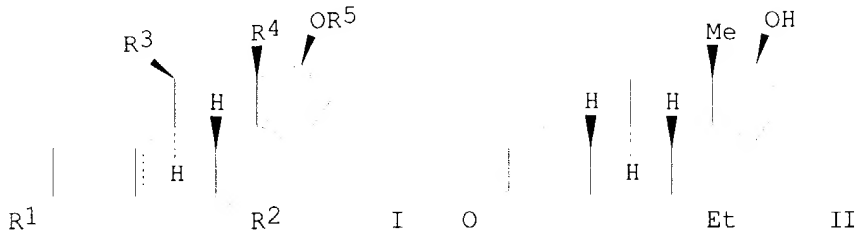
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	BR 2000012489	A	20020402	BR 2000-12489	20000710
	EP 1203011	A1	20020508	EP 2000-953032	20000710
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003505394	T2	20030212	JP 2001-511464	20000710
	NZ 516525	A	20030630	NZ 2000-516525	20000710
	US 6313108	B1	20011106	US 2000-613350	20000711
	US 2002022609	A1	20020221	US 2001-918626	20010731
	US 6541465	B2	20030401		
	NO 2002000222	A	20020125	NO 2002-222	20020115
	US 2003087886	A1	20030508	US 2002-280038	20021024
PRAI	EP 1999-202348	A	19990716		
	WO 2000-EP6544	W	20000710		
	US 2000-613350	A3	20000711		
	US 2001-918626	A3	20010731		

OS MARPAT 134:101064
GI



AB Novel 7α-substituted Δ14 orally active androgens of formula I [R1 = O, H2, (substituted) OH, N-alkoxy; R2 = alkyl, alkenyl, cyclopropyl, etc.; R3 = H, alkyl, ethenyl; R4 = alkyl; R5 = H, acyl] are prepared Thus, II was prepared from 17α-hydroxy-19-norpregna-4,6-dien-20-yn-3-one in several steps. Compound II was shown to be orally active in the LH suppression assay, and has metabolic stability.

ST androgen prepn orally active; male oral contraceptive androgen prepn

IT Contraceptives
(oral, male; preparation of orally active androgens)

IT Androgens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of orally active androgens)

IT Androgens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(replacement therapy; preparation of orally active androgens)

IT 319003-75-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of orally active androgens)

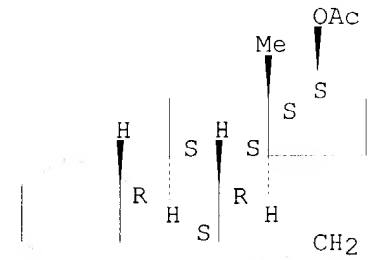
IT 319003-76-4P 319003-77-5P 319003-78-6P 319003-79-7P 319003-80-0P
319003-81-1P 319003-82-2P 319003-83-3P 319003-84-4P 319003-85-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of orally active androgens)

IT 2590-41-2 21800-83-9 31528-46-8 89031-84-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of orally active androgens)

IT 18112-13-5P 24875-81-8P 229634-72-4P 229634-73-5P
293303-46-5P 293303-47-6P 293303-48-7P 293303-49-8P
293303-50-1P 293303-51-2P 293303-52-3P 293303-53-4P 293303-54-5P
293303-56-7P **300542-24-9P 300542-25-0P** 300542-58-9P
300542-76-1P 300542-77-2P 319003-86-6P 319003-87-7P 319003-88-8P
319003-89-9P 319003-90-2P 319003-92-4P 319003-93-5P 319003-94-6P
319003-95-7P 319003-96-8P 319003-97-9P 319003-98-0P 319003-99-1P
319004-00-7P 319004-01-8P 319004-02-9P 319004-03-0P 319004-04-1P
319004-05-2P 319004-06-3P 319004-07-4P 319004-08-5P 319004-09-6P
319004-10-9P 319004-11-0P 319004-12-1P 319004-13-2P 319004-14-3P
319004-15-4P 319004-16-5P 319004-17-6P 319004-18-7P 319004-19-8P
319004-20-1P 319004-21-2P 319004-22-3P 319004-23-4P 319004-25-6P
319004-27-8P 319004-28-9P 319004-31-4P 319004-33-6P 319004-35-8P
319004-37-0P 319004-39-2P 319004-41-6P 319004-43-8P 319004-45-0P
319004-47-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

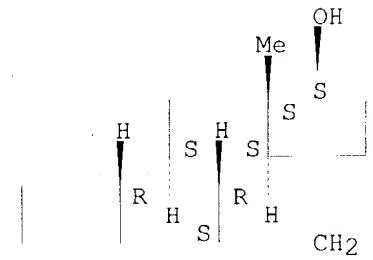
(preparation of orally active androgens)
IT 293303-55-6P 319003-91-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of orally active androgens)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Avery, M; STEROIDS: STRUCTURE, FUNCTION, AND REGULATION 1990, V55(2), P59 HCAPLUS
(2) Cochsner Med Found Alton; GB 1341601 A 1973 HCAPLUS
(3) Solo; STEROIDS 1982, V40(6), P603
IT **293303-46-5P 293303-47-6P 300542-24-9P 300542-25-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of orally active androgens)
RN 293303-46-5 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



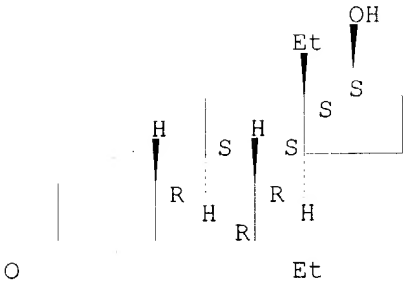
RN 293303-47-6 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



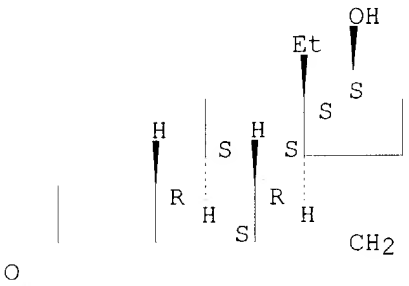
RN 300542-24-9 HCAPLUS
CN Gon-4-en-3-one, 7,13-diethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 300542-25-0 HCAPLUS
CN Gon-4-en-3-one, 7-ethenyl-13-ethyl-17-hydroxy-, (7α,17β)- (9CI)
(CA INDEX NAME)

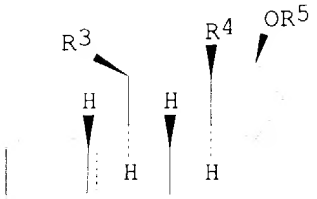
Absolute stereochemistry.



L49 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:733601 HCAPLUS
DN 133:281951
ED Entered STN: 17 Oct 2000
TI synthesis and activity of orally active androgens
IN Van der Louw, Jaap; Leysen, Dirk; Buma Bursi, Roberta
PA Akzo Nobel N. V., Neth.
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07J001-00
CC 32-3 (Steroids)
Section cross-reference(s): 2
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000059920	A2	20001012	WO 2000-EP2851	20000331
	WO 2000059920	A3	20010215		
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1043330	A1	20001011	EP 1999-201070	19990406
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1212345	A2	20020612	EP 2000-936686	20000331
	EP 1212345	B1	20030806		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
JP 2002541153 T2 20021203 JP 2000-609430 20000331
AT 246703 E 20030815 AT 2000-936686 20000331
PRAI EP 1999-201070 A 19990406
WO 2000-EP2851 W 20000331
OS MARPAT 133:281951
GI



I

AB Novel, orally active androgens (I) [R1 = O, (H, H), (H, OR), NOR, with R = H, alkyl, or acyl; R2 = alkyl, CHMe2, alkenyl, isopropenyl, propadienyl, or alkynyl, each optionally substituted by halogen; or R2 = cyclopropyl, or cyclopropenyl, each optionally substituted by alkyl, or halogen; R3 = H, alkyl, or ethenyl; R4 = alkyl; R5 = H, or acyl; and the dotted lines indicate optional bonds] are derivs. of 7α-methyl-19-nortestosterone. Thus, I (R1 = O, R2 = Et, R3 = H, R4 = Me, R5 = H, bond 4 5 double, bond 5 10 single) (II) is prepared by copper catalyzed alkylation of (17β)-17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]estra-4,6-dien-3-one followed by trimethylsilylation of keto and desilylation with hydrochloric acid. II shows an ED50 of 2.5 mg/kg in assay to suppress serum LH.

ST nortestosterone methyl analog prepn; orally active androgen insufficiency treatment; male contraceptive kit progestogen oral

IT Progestogens
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for male contraceptive kit; synthesis and activity of orally active androgens)

IT Androgens
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(insufficiency treatment; synthesis and activity of orally active androgens)

IT Contraceptives
(male, kit of progestagen; synthesis and activity of orally active androgens)

IT **32297-29-3P 293303-47-6P 300542-15-8P**
300542-16-9P 300542-17-0P 300542-18-1P
300542-19-2P 300542-20-5P 300542-21-6P
300542-22-7P 300542-23-8P 300542-24-9P
300542-25-0P 300542-26-1P 300542-27-2P
300542-28-3P 300542-29-4P 300542-30-7P
300542-31-8P 300542-32-9P 300542-33-0P
300542-34-1P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or

effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

IT **300542-83-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

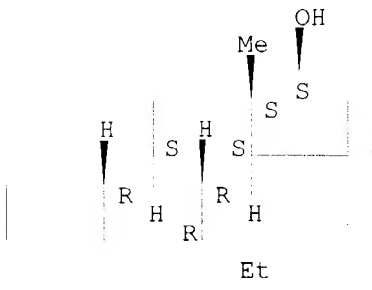
IT 62-23-7, 4-Nitrobenzoic acid 74-96-4, Bromoethane 105-53-3, Diethyl malonate 540-63-6, 1,2-Ethanedithiol 1530-32-1, Ethyltriphenylphosphonium bromide 2590-41-2 3536-96-7, Vinylmagnesium chloride 5293-84-5, (Chloromethyl)triphenylphosphonium chloride 13154-15-9 21800-83-9 56896-41-4 116506-60-6 133152-37-1 213890-36-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)

IT 153004-23-0P **213889-77-1P 293303-46-5P** 300542-35-2P
300542-36-3P 300542-37-4P 300542-38-5P 300542-39-6P
300542-40-9P 300542-41-0P 300542-42-1P 300542-43-2P 300542-44-3P
300542-45-4P 300542-46-5P **300542-47-6P** 300542-48-7P
300542-49-8P **300542-50-1P** 300542-51-2P 300542-52-3P
300542-53-4P 300542-54-5P 300542-55-6P 300542-56-7P 300542-57-8P
300542-58-9P 300542-59-0P 300542-60-3P 300542-61-4P 300542-62-5P
300542-63-6P 300542-64-7P 300542-65-8P 300542-66-9P
300542-67-0P 300542-68-1P 300542-69-2P 300542-70-5P
300542-71-6P 300542-72-7P 300542-73-8P 300542-74-9P 300542-75-0P
300542-76-1P 300542-77-2P 300542-78-3P 300542-79-4P 300542-80-7P
300542-81-8P 300542-82-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)

IT **32297-29-3P 293303-47-6P 300542-15-8P**
300542-16-9P 300542-17-0P 300542-18-1P
300542-19-2P 300542-20-5P 300542-21-6P
300542-22-7P 300542-23-8P 300542-24-9P
300542-25-0P 300542-26-1P 300542-27-2P
300542-28-3P 300542-29-4P 300542-30-7P
300542-31-8P 300542-32-9P 300542-33-0P
300542-34-1P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

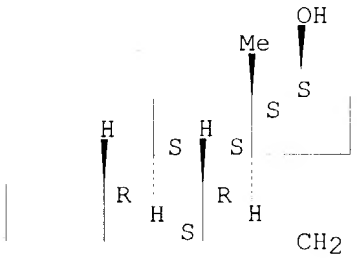
RN 32297-29-3 HCAPLUS
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



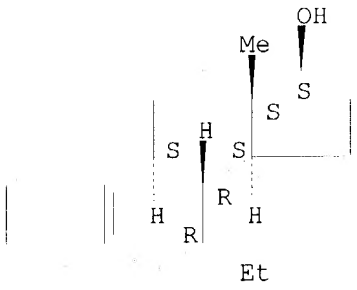
RN 293303-47-6 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



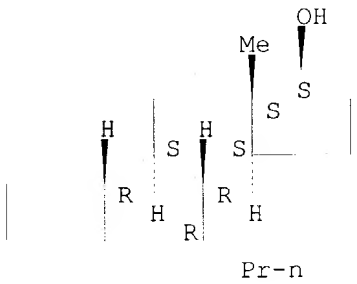
RN 300542-15-8 HCAPLUS
CN Estr-5(10)-en-3-one, 7-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



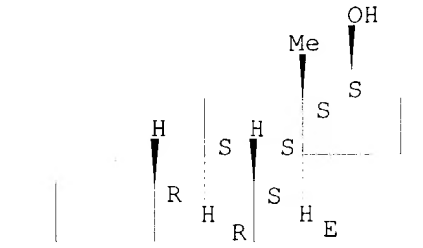
RN 300542-16-9 HCAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-propyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



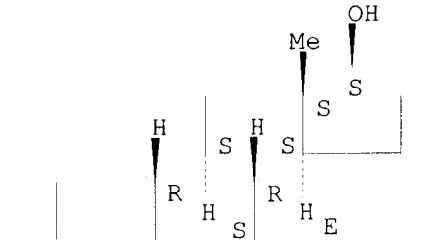
RN 300542-17-0 HCAPLUS
CN Estr-4-en-3-one, 7-[(1E)-2-chloroethenyl]-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



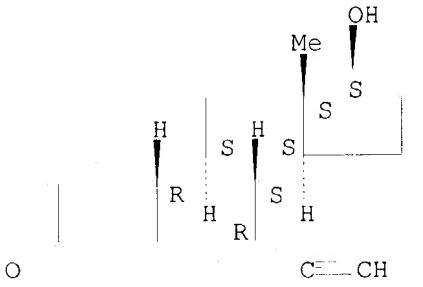
RN 300542-18-1 HCAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1E)-1-propenyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



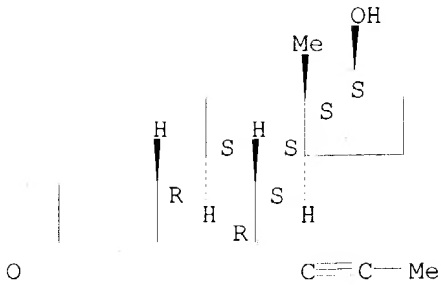
RN 300542-19-2 HCAPLUS
CN Estr-4-en-3-one, 7-ethynyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



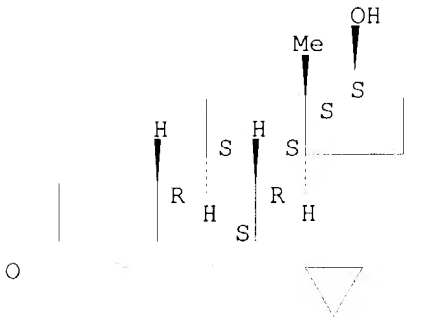
RN 300542-20-5 HCAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propynyl)-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



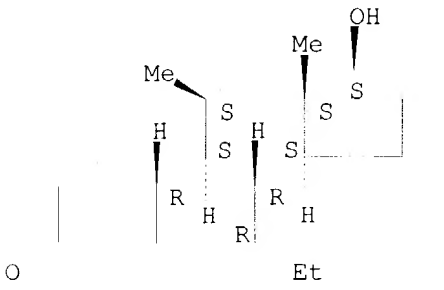
RN 300542-21-6 HCAPLUS
CN Estr-4-en-3-one, 7-cyclopropyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



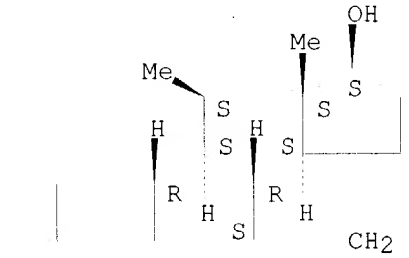
RN 300542-22-7 HCAPLUS
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-11-methyl-, (7α,11β,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



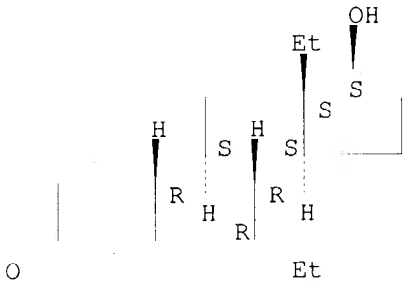
RN 300542-23-8 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-11-methyl-, (7α,11β,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



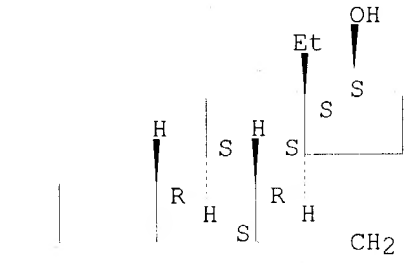
RN 300542-24-9 HCAPLUS
CN Gon-4-en-3-one, 7,13-diethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



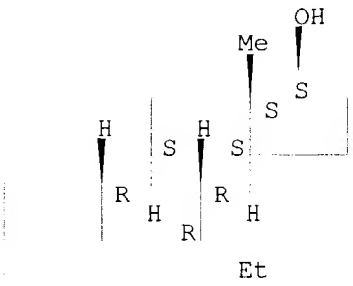
RN 300542-25-0 HCAPLUS
CN Gon-4-en-3-one, 7-ethenyl-13-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



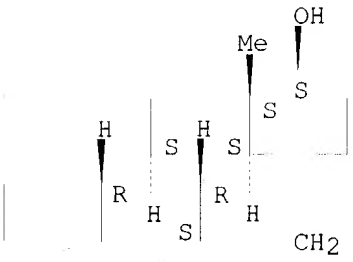
RN 300542-26-1 HCAPLUS
CN Estr-4-en-17-ol, 7-ethyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



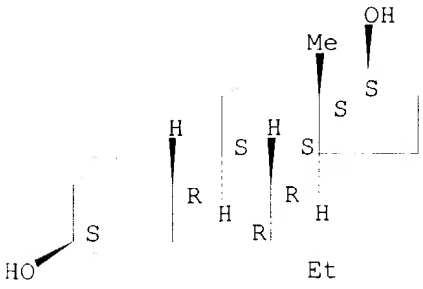
RN 300542-27-2 HCAPLUS
CN Estr-4-en-17-ol, 7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



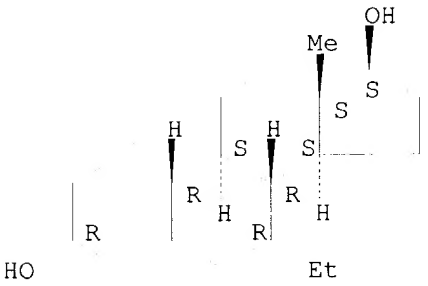
RN 300542-28-3 HCAPLUS
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3β,7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



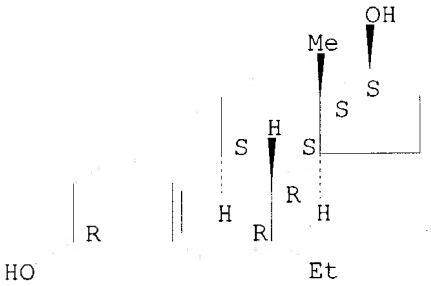
RN 300542-29-4 HCAPLUS
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3α,7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



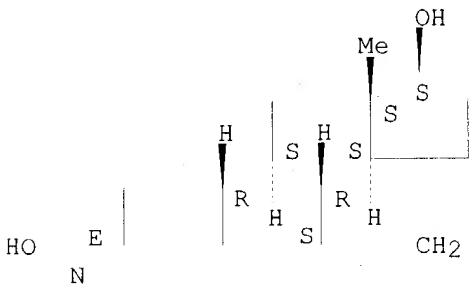
RN 300542-30-7 HCAPLUS
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3α,7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



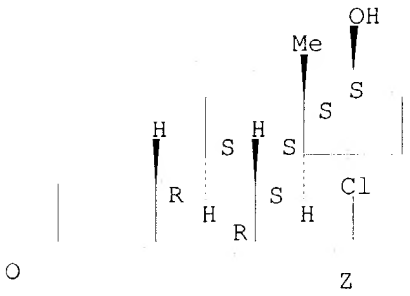
RN 300542-31-8 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, oxime, (3E,7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



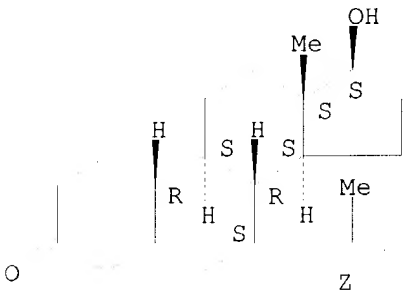
RN 300542-32-9 HCAPLUS
CN Estr-4-en-3-one, 7-[(1Z)-2-chloroethenyl]-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



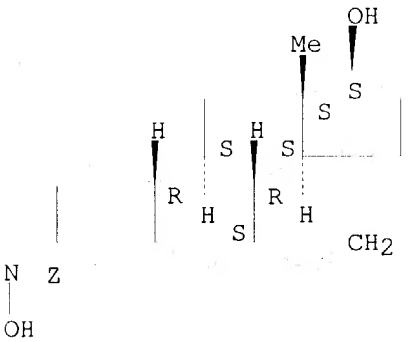
RN 300542-33-0 HCAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1Z)-1-propenyl-, (7α,17β)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



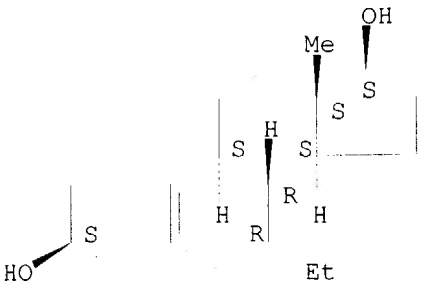
RN 300542-34-1 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, oxime, (3Z,7α,17β)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **300542-83-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)
RN 300542-83-0 HCAPLUS
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3β,7α,17β)- (9CI)
(CA INDEX NAME)

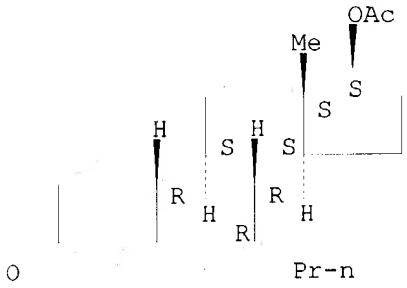
Absolute stereochemistry.



IT **213889-77-1P 293303-46-5P 300542-36-3P**
300542-47-6P 300542-50-1P 300542-67-0P
300542-68-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)

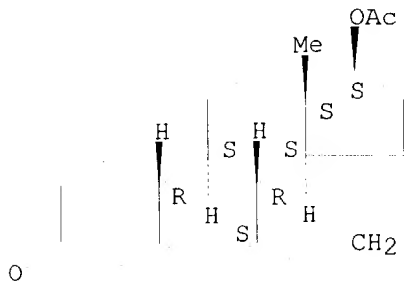
RN 213889-77-1 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-propyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



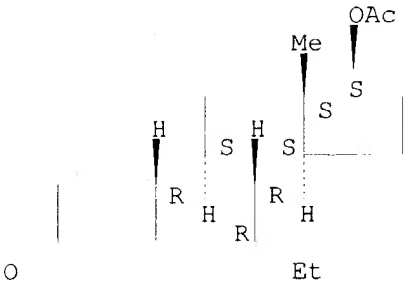
RN 293303-46-5 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



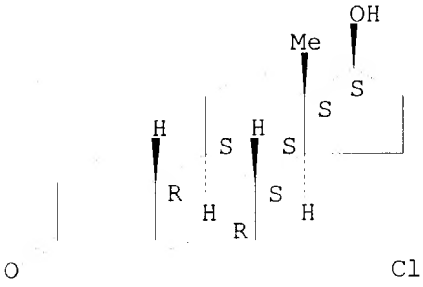
RN 300542-36-3 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



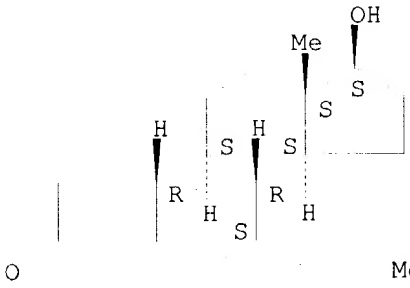
RN 300542-47-6 HCAPLUS
CN Estr-4-en-3-one, 7-(2-chloroethenyl)-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



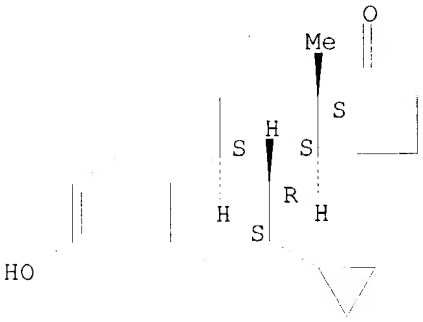
RN 300542-50-1 HCAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



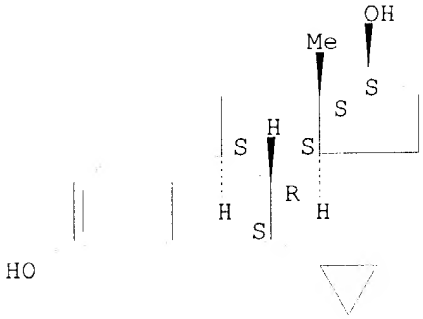
RN 300542-67-0 HCAPLUS
CN Estra-1,3,5(10)-trien-17-one, 7-cyclopropyl-3-hydroxy-, (7α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 300542-68-1 HCAPLUS
CN Estra-1,3,5(10)-triene-3,17-diol, 7-cyclopropyl-, (7α,17β)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L49 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:646025 HCAPLUS
DN 133:238171
ED Entered STN: 15 Sep 2000
TI preparation of 14β,17α-hydroxymethylandrostane derivatives as androgens
IN Loozen, Hubert Jan Jozef; Leysen, Dirk; Van der Louw, Jaap
PA Akzo Nobel N.V., Neth.
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07J015-00
ICS A61K031-565; C07J053-00
CC 32-4 (Steroids)
Section cross-reference(s): 1, 63
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000053619	A1	20000914	WO 2000-EP1755	20000302
	W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2359218	AA	20000914	CA 2000-2359218	20000302
	EP 1163259	A1	20011219	EP 2000-909281	20000302

EP 1163259 B1 20021120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
JP 2002539135 T2 20021119 JP 2000-604054 20000302
AT 228143 E 20021215 AT 2000-909281 20000302
PRAI EP 1999-200665 A 19990308
WO 2000-EP1755 W 20000302
OS MARPAT 133:238171
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. I wherein R1 = O, (H,H), (H, OR), NOR, R = H, (C1-6) alkyl, (C1-6) acyl; R2 = H, (C1-6) alkyl, or halo; R3 = H, (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl; R4 = H, halo, or cyano; or R4 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl; R5 = H, or (C1-6) alkyl; R6 = H, (C1-6) alkoxy, or halo; or R6 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl, a (C1-6) alkylidene group, or a (C2-6) alkylidene group; R7 = H, or (C1-6) alkyl; R8 = (C1-6) alkyl; R9 = H, halo cyano; or R9 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, or (C2-6) alkynyl; R10 = H, (C1-6) alkoxy, halo, or cyano; or R10 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl or (C2-6) alkynyl; R10 R11 may form a cyclopropane ring; R11 = H, (C1-6) alkoxy, halo, cyano; or R11 = (un)substituted (C2-6) alkenyl or (C2-6) alkynyl, R11 R10 may form a cyclopropane ring; R12 = H, OH, halo, or cyano; or R12 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl or (C2-6) alkynyl; R13, R14 = H, cyano, (un)substituted Ph; or R13, R14 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C3-6) cycloalkyl, (C5-6)cycloalkenyl, (C2-6) alkynyl; R13 R14 may form a (C3-6) cycloalkane ring or a (C5-6) cycloalkene ring; R15 = H, SO3H, (C1-6) alkyl, (C1-15) acyl; and the dotted lines indicate optional bonds were prepared I is not 20-hydroxy-14β,17α-19-norpregn-4-en-3-one, (3β,5α,14β,17α)-pregna-3,20-diol, (3β,14β,17α)-pregna-5,9(11)-dien-3,20-diol, and (14β,17α)-20-hydroxy-19-norpregn-4-en-3-one. Thus, a solution of (14β,17α)-3-methoxyestra-2,5(10)-diene-17-methanol (II) in a mixture of methanol and THF was treated with a solution of oxalic acid in water, after 1.5 h stirring at room temperature, the reaction mixture was poured into water and the product was extracted with Et acetate, the combined organic phase were washed with saturated aqueous solution of sodium bicarbonate and brine, dried over sodium sulfate and concentrated under reduced pressure, column chromatog. afforded (14β,17α)-17-(hydroxymethyl)estr-5(10)-en-3-one (III). I were screened for androgenic activity. They can be used for the preparation of an agent for male contraception, as well as for the preparation of a medicament for the treatment of androgen insufficiency.

ST hydroxymethylandrostane deriv prepn androgen

IT Contraceptives
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT Androgens
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 293302-69-9P 293304-07-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 17554-46-0P 293302-67-7P 293302-71-3P 293302-77-9P 293302-86-0P
293303-04-5P 293303-13-6P 293303-20-5P 293303-25-0P 293303-31-8P
293303-38-5P 293303-42-1P 293303-45-4P 293303-62-5P 293303-69-2P
293303-76-1P 293303-82-9P 293303-83-0P 293303-84-1P 293303-85-2P
293303-86-3P 293303-89-6P 293303-90-9P 293303-98-7P 293303-99-8P
293304-00-4P 293304-01-5P 293304-08-2P 293304-09-3P 293304-14-0P
293304-15-1P 293304-16-2P 293304-17-3P 293304-26-4P 293304-27-5P
293304-43-5P 293304-45-7P 293304-46-8P 293304-50-4P 293304-51-5P
293304-54-8P 293304-59-3P 293304-61-7P 293304-62-8P 293304-64-0P
293304-66-2P 293304-67-3P 293304-68-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 107-21-1, 1,2-Ethanediol, reactions 109-92-2 540-63-6, 1,2-Ethanedithiol 1239-33-4 2590-41-2 3536-96-7, Vinylmagnesium chloride 17253-50-8 17550-10-6 17748-69-5 35644-59-8 293304-52-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 24357-33-3P 33203-18-8P 61252-30-0P 116948-86-8P 116948-87-9P
116948-89-1P 116948-90-4P 133522-46-0P 293302-65-5P 293302-72-4P
293302-73-5P 293302-74-6P 293302-75-7P 293302-76-8P 293302-78-0P
293302-79-1P 293302-80-4P 293302-81-5P 293302-82-6P 293302-83-7P
293302-84-8P 293302-85-9P 293302-87-1P 293302-88-2P 293302-89-3P
293302-90-6P 293302-91-7P 293302-92-8P 293302-93-9P 293302-94-0P
293302-95-1P 293302-96-2P 293302-97-3P 293302-98-4P 293302-99-5P
293303-00-1P 293303-01-2P 293303-02-3P 293303-03-4P 293303-05-6P
293303-06-7P 293303-07-8P 293303-08-9P 293303-09-0P 293303-10-3P
293303-11-4P 293303-12-5P 293303-14-7P 293303-15-8P 293303-16-9P
293303-17-0P 293303-18-1P 293303-19-2P 293303-21-6P 293303-22-7P
293303-23-8P 293303-24-9P 293303-26-1P 293303-27-2P 293303-28-3P
293303-29-4P 293303-30-7P 293303-33-0P 293303-34-1P 293303-35-2P
293303-36-3P 293303-37-4P 293303-39-6P 293303-40-9P 293303-41-0P
293303-43-2P 293303-44-3P **293303-46-5P 293303-47-6P**
293303-48-7P 293303-49-8P 293303-50-1P 293303-51-2P 293303-52-3P
293303-53-4P 293303-54-5P 293303-56-7P 293303-57-8P 293303-58-9P
293303-59-0P 293303-60-3P 293303-61-4P 293303-63-6P 293303-64-7P
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293303-71-6P 293303-72-7P 293303-73-8P 293303-74-9P 293303-75-0P
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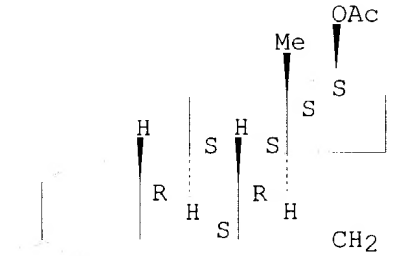
293303-96-5P 293303-97-6P 293304-02-6P 293304-03-7P 293304-04-8P
293304-05-9P 293304-06-0P 293304-11-7P 293304-12-8P 293304-13-9P
293304-25-3P 293304-28-6P 293304-29-7P 293304-30-0P 293304-31-1P
293304-32-2P 293304-33-3P 293304-34-4P 293304-35-5P 293304-36-6P
293304-37-7P 293304-38-8P 293304-39-9P 293304-40-2P 293304-41-3P
293304-42-4P 293304-47-9P 293304-48-0P 293304-49-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 293304-53-7P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)

IT 293303-55-6P 293303-81-8P 293303-87-4P 293303-88-5P 293303-91-0P
293303-92-1P 293303-93-2P 293303-94-3P 293304-18-4P 293304-19-5P
293304-20-8P 293304-21-9P 293304-22-0P 293304-23-1P 293304-24-2P

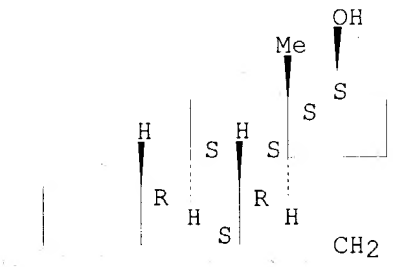
293304-44-6P 293304-55-9P 293304-56-0P 293304-57-1P 293304-58-2P
293304-60-6P 293304-63-9P 293304-65-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Akzo Nv; EP 0277676 A 1988 HCAPLUS
(2) Barton, D; Journal of the Chemical Society 1957, V6, P2698
(3) Da Silva Campos Neves, A; Bol Escola Farm Univ Coimbra 1957, V17, P1
(4) Okada, M; Chemical and Pharmaceutical Bulletin 1968, V16(11), P2223 HCAPLUS
(5) Perelman, M; US 3086027 A 1963 HCAPLUS
(6) Res Corp Technologies Inc; WO 9315104 A 1993 HCAPLUS
(7) Shoppee, C; Helvetica Chimica Acta 1944, V27, P246 HCAPLUS
IT **293303-46-5P 293303-47-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 14β, 17α-hydroxymethylandrostane derivs. as androgens)
RN 293303-46-5 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 293303-47-6 HCAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

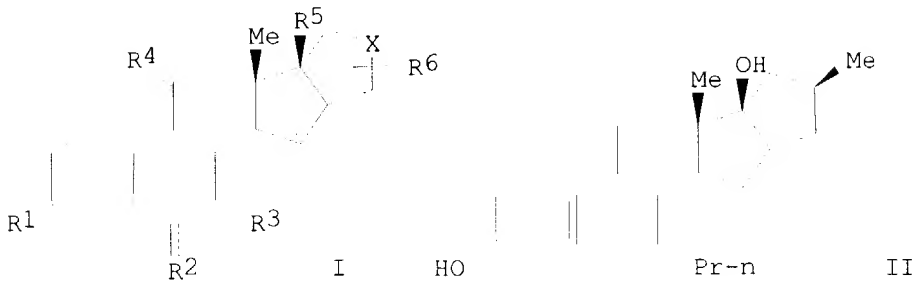


L49 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:689228 HCAPLUS
DN 129:276095
ED Entered STN: 30 Oct 1998
TI Preparation of steroid compounds having contraceptive and anti-osteoporosis activity
IN Loozen, H. J. J.

PA Akzo Nobel N.V., Neth.
SO Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07J053-00
ICS A61K031-56
CC 32-3 (Steroids)
Section cross-reference(s): 1
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 869132	A1	19981007	EP 1998-200518	19980218
	EP 869132	B1	20010905		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	TW 403736	B	20000901	TW 1998-87101457	19980205
	IL 123195	A1	20021110	IL 1998-123195	19980205
	ZA 9801344	A	19980827	ZA 1998-1344	19980218
	AT 205217	E	20010915	AT 1998-200518	19980218
	PT 869132	T	20020130	PT 1998-98200518	19980218
	ES 2164400	T3	20020216	ES 1998-200518	19980218
	US 6077873	A	20000620	US 1998-26348	19980219
	CA 2229960	AA	19980821	CA 1998-2229960	19980220
	NO 9800737	A	19980824	NO 1998-737	19980220
	AU 9855412	A1	19980827	AU 1998-55412	19980220
	AU 723713	B2	20000907		
	CN 1197076	A	19981028	CN 1998-108595	19980220
	BR 9800718	A	19990629	BR 1998-718	19980220
	RU 2182153	C2	20020510	RU 1998-103023	19980220
	HK 1016188	A1	20020215	HK 1999-101306	19990330
	US 6313180	B1	20011106	US 2000-538783	20000330
PRAI	EP 1997-102884	A	19970221		
	US 1998-26348	A1	19980219		

OS MARPAT 129:276095
GI

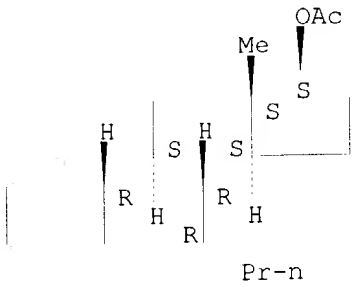


AB Steroids of formula I [X = (CH2)n; n = 0-3; R1 = oxo, OH, NOH, etc.; R2 = H, CH2, alkyl; R3 = H, alkyl, alkenyl, alkynyl; R4 = H, alkyl, alkylidene, etc.; R5 = OH, OCH2OH, acyloxy; R6 = H, alkyl, etc.] are prepared The steroid compds. of the present invention are very suitable for use in the prevention or treatment of peri-menopausal or menopausal complaints, more preferably the prevention or treatment of osteoporosis. Furthermore, the steroid compds. of the present invention can be used for contraceptive purposes. Thus, II was prepared from 17β-acetyloxyestra-4,6-dien-3-one and Pr bromide in 12 steps. II showed 64 μg/kg in the Allen Doisy test for in vivo estrogenic activity.

ST steroid compd prepn contraceptive anti osteoporosis
IT Osteoporosis
(postmenopausal; preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT Contraceptives
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT Steroids, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT Menopause
(symptoms; preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT Osteoporosis
(therapeutic agents; preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT 213889-92-0P 213890-02-9P 213890-03-0P 213890-12-1P 213890-15-4P
213890-22-3P 213890-27-8P 213890-31-4P 213890-41-6P 213890-43-8P
213890-45-0P 213890-48-3P 213890-50-7P 213890-52-9P 213890-55-2P
213890-57-4P 213890-59-6P 213890-62-1P 213890-64-3P 213890-66-5P
213890-69-8P 213890-71-2P 213890-73-4P 213890-75-6P 213890-78-9P
213890-80-3P 213890-82-5P 213890-85-8P 213890-87-0P 213890-89-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT 106-94-5, Propyl bromide 106-95-6, Allyl bromide, reactions 927-77-5, Propylmagnesium bromide 38771-21-0, 4-Bromo-1-butyne 80121-73-9
88247-84-1 92511-12-1 100001-40-9 105859-46-9 177901-03-0
213890-36-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
IT 2590-41-2P 13209-45-5P, Estra-4,6-diene-3,17-dione **213889-77-1P**
213889-78-2P 213889-80-6P 213889-81-7P 213889-83-9P 213889-85-1P
213889-86-2P 213889-88-4P 213889-89-5P 213889-90-8P 213889-91-9P
213889-93-1P 213889-95-3P 213889-96-4P 213889-97-5P 213889-98-6P
213889-99-7P 213890-04-1P 213890-05-2P 213890-06-3P 213890-08-5P
213890-09-6P 213890-10-9P 213890-11-0P 213890-13-2P 213890-14-3P
213890-17-6P 213890-19-8P 213890-20-1P 213890-21-2P 213890-24-5P
213890-25-6P 213890-26-7P 213890-28-9P 213890-30-3P 213890-32-5P
213890-33-6P 213890-35-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Pieter, S; WO 9418224 A 1994 HCAPLUS
(2) Schering Ag; EP 0411733 A 1991 HCAPLUS
(3) Wang, J; ANGEWANDTE CHEMIE INTERNATIONAL EDITION 1995, V34(16), P1749 HCAPLUS
IT **213889-77-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)
RN 213889-77-1 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-propyl-, (7α,17β)- (9CI) (CA

INDEX NAME)

Absolute stereochemistry.



L49 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1998:666022 HCAPLUS
DN 129:316429
ED Entered STN: 21 Oct 1998
TI Preparation of contraceptive and antiosteoporotic steroids and their uses
IN Loozen, Hubert Jan Jozef
PA Akzo Nobel N.V., Neth.
SO Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07J053-00
ICS A61K031-56
CC 32-3 (Steroids)
Section cross-reference(s): 1
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10273499	A2	19981013	JP 1998-39455	19980220
	TW 403736	B	20000901	TW 1998-87101457	19980205
	IL 123195	A1	20021110	IL 1998-123195	19980205
	ZA 9801344	A	19980827	ZA 1998-1344	19980218
	AT 205217	E	20010915	AT 1998-200518	19980218
	PT 869132	T	20020130	PT 1998-98200518	19980218
	ES 2164400	T3	20020216	ES 1998-200518	19980218
	US 6077873	A	20000620	US 1998-26348	19980219
	CA 2229960	AA	19980821	CA 1998-2229960	19980220
	NO 9800737	A	19980824	NO 1998-737	19980220
	AU 9855412	A1	19980827	AU 1998-55412	19980220
	AU 723713	B2	20000907		
	CN 1197076	A	19981028	CN 1998-108595	19980220
	BR 9800718	A	19990629	BR 1998-718	19980220
	RU 2182153	C2	20020510	RU 1998-103023	19980220
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	US 6313180	B1	20011106	US 2000-538783	20000330
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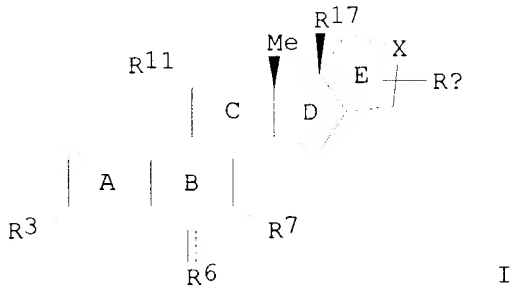
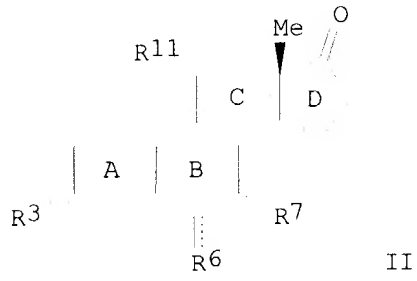
	US 1998-26348	A1	19980219		

OS MARPAT 129:316429
GI



I



II

AB The steroids I [R3 = O, OH, :NOR, OR, O2CR; R = C1-6 alkyl; R6 = CH2, (CH2)mH; m = 1,2; R7 = H, C1-4 alkyl, C2-5 alkenyl, C2-5 alkynyl, which may be substituted with 1-3 F or Cl; R11 = C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C1-4 alkylidene, which may be substituted with 1-3 F or Cl; E ring is a 4-7-membered condensed ring (α-configuration) which may be substituted by RE and which may contain 1-2 double bond; X = part of ring E; RE = H, C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C1-6 alkylidene, cycloalkyl having C2-6 spiro ring, OR, SR, O2CR, NHR, NR2, NHCOR, NCO, (CH2)nN3, (CH2)nCN, among which aliphatic groups may be substituted with 1-3 OR, SR, O2CR, NHR, NR2, NHCOR, Cl, F; n = 0-5; R17 = OH, OCH2OR, OR, O2CR; D9(10), D5(10), D4(5), D11(12), and/or Δ14(15) may be double bond; either of rings A or B is aromatic ring] are prepared A method for the preparation of I involves (a) introduction of (un)substituted ω-iodoalkyl group into C in position 16 of 17-ketosteroids II and cyclization of the group upon treatment with organometallic reagents or (a') introduction of (un)substituted alkenyl group into C in positions 16 and 17 and cyclization via transition metal-catalyzed olefin metathesis. A THF solution of (7α)-3-methoxy-7-propylestra-1,3,5(10)-triene-17-one dimethylhydrazone (preparation given) was treated with BuLi at -40° for 0.5 h and then further treated with (2R)-2-methyl-3-iodopropanol O-tert-butyldimethylsilyl ether at -20° for 1 h to give [7α,16α(S)]-16-[3[[dimethyl(1,1-dimethylethyl)silyl]oxy]-2-methylpropyl]-3-methoxy-7-propylestra-1,3,5(10)-triene-17-one dimethylhydrazone. This was submitted to desilylation, deprotection of hydrazono group to recover the keto group, O-tosylation, iodination, cyclization, and 3-demethylation to give (4'S,7α,16α,17α)-3',4',5',16-tetrahydro-4'-methyl-7-propyl-17H-cyclopenta[16,17]estra-1,3,5(10)-triene-3,17-diol. Some of I were tested for their preventive effect against decrease in the bone mineral d. of ovariectomized rats.

ST steroid ring condensed prepn contraceptive antiosteoporotic; cyclopentaestratriene prepn contraceptive antiosteoporotic; alkenylation ketosteroid olefin metathesis cyclization; alkenylated ketosteroid olefin metathesis cyclization

IT Contraceptives
(preparation of contraceptive and antiosteoporotic steroids by forming

condensed ring at the positions 16 and 17)

IT Osteoporosis
(therapeutic agents; preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

IT 213889-90-8P 213890-02-9P 213890-15-4P 213890-22-3P 213890-27-8P
213890-31-4P 214981-03-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

IT 213889-91-9P 213889-92-0P 213889-93-1P 213889-95-3P 213889-96-4P
213889-97-5P 213889-98-6P 213889-99-7P 213890-03-0P 213890-04-1P
213890-05-2P 213890-06-3P 213890-08-5P 213890-09-6P 213890-10-9P
213890-11-0P 213890-13-2P 213890-14-3P 213890-17-6P 213890-19-8P
213890-20-1P 213890-21-2P 213890-24-5P 213890-25-6P 213890-26-7P
213890-28-9P 213890-30-3P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

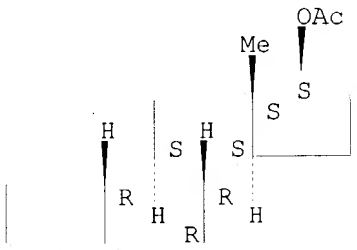
IT 2417-93-8, Propyllithium 7486-35-3, Vinyltributyltin 38771-21-0, 4-Bromo-1-butyne 80121-73-9 88247-84-1 92511-12-1 100001-40-9 105859-46-9 177901-03-0 **213889-77-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

IT 2590-41-2P 213889-78-2P 213889-80-6P 213889-81-7P 213889-83-9P
213889-85-1P 213889-86-2P 213889-88-4P 213889-89-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

IT **213889-77-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of contraceptive and antiosteoporotic steroids by forming condensed ring at the positions 16 and 17)

RN 213889-77-1 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-propyl-, (7α,17β)- (9CI) (CA INDEX NAME)

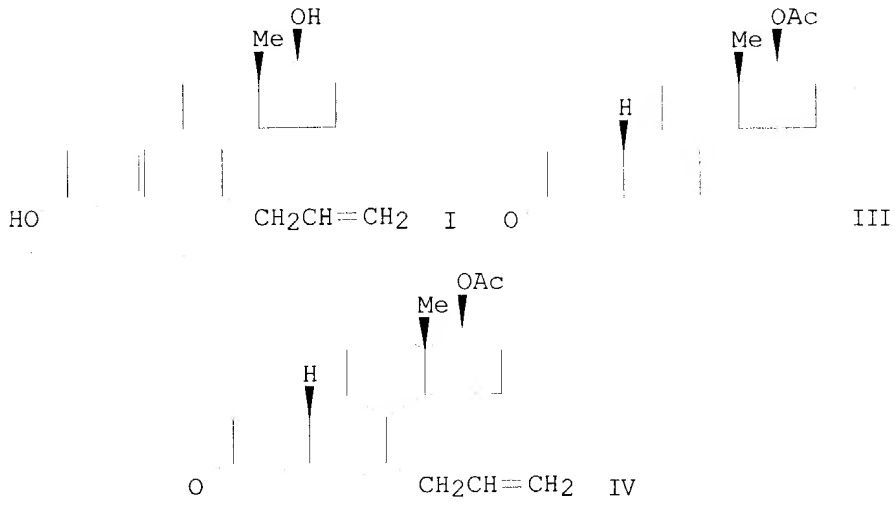
Absolute stereochemistry.



O Pr-n

L49 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1989:95601 HCAPLUS
DN 110:95601
ED Entered STN: 17 Mar 1989
TI The preparation of 7α- and 7β-allylestradiol and an unusual titanium(IV) chloride-mediated dimerization
AU Kirk, David N.; Miller, Barry W.

CS Chem. Dep., Queen Mary Coll., London, E1 4NS, UK
SO Journal of Chemical Research, Synopses (1988), (9), 278-9
CODEN: JRPSDC; ISSN: 0308-2342
DT Journal
LA English
CC 32-3 (Steroids)
OS CASREACT 110:95601
GI



AB 7α/Allyestradiol (I) and its 7β-epimer (II) were prepared from estra-4,6-dien-3-one III. Thus, the allylation of III with CH2=CHCH2SiMe3 in the presence of Bu4NF gave 7α-allyl derivative IV and its 7β-epimer (V). The aromatization of IV with CuBr2-LiBr gave the 17-O-acetate of I, which was hydrolyzed to give I. II was obtained similarly from V. The reaction of III with CH2:CHCH2SiMe3 in the presence of TiCl4 gave a 6β,6'β-dimer.

ST allylestradiol; estradiol allyl; allylation estradienone; dimerization allylation estradienone titanium chloride

IT Dimerization
(of acetoxyestradienone during allylation with allyltrimethylsilane in presence of titanium chloride)

IT 762-72-1, Allyltrimethylsilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(allylation by, of acetoxyestradienone)

IT 2590-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(allylation of, with allyltrimethylsilane)

IT **119020-33-6P 119020-34-7P** 119020-36-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aromatization of)

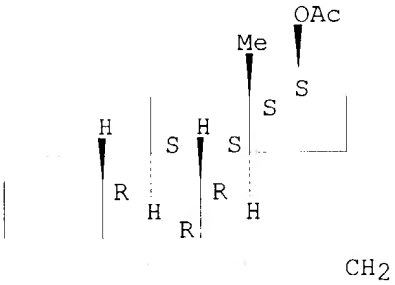
IT 119020-37-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and conformation of)

IT 119020-39-2P 119020-40-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deacetylation of)

IT 1425-10-1P 119020-31-4P 119020-32-5P 119020-35-8P 119020-38-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

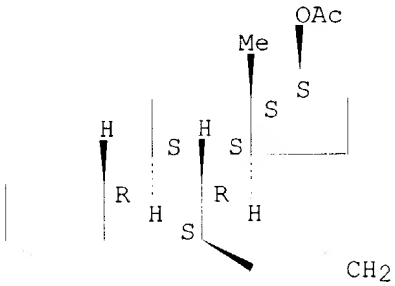
IT **119020-33-6P 119020-34-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aromatization of)
RN 119020-33-6 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-(2-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

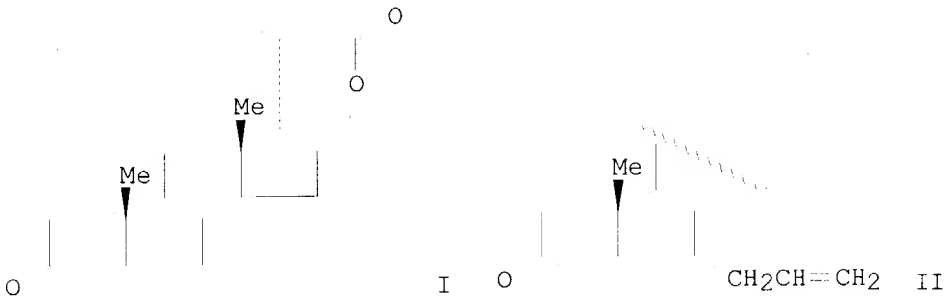


RN 119020-34-7 HCAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-(2-propenyl)-, (7β,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L49 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1988:529426 HCAPLUS
DN 109:129426
ED Entered STN: 14 Oct 1988
TI Stereoselective synthesis of 7α-allyl- and 7α-propylsteroids
AU Nickisch, Klaus; Laurent, Henry
CS Forschungslab., Schering A-G, Berlin, D-1000/65, Fed. Rep. Ger.
SO Tetrahedron Letters (1988), 29(13), 1533-6
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA German
CC 32-4 (Steroids)
OS CASREACT 109:129426
GI



AB The reaction of allyltrimethylsilane (Sakurai reaction) with steroidal 3-oxo-4,6-dienes catalyzed by TiCl4 gave only the 7α-substituted derivs. E.g., I gave 73% II.

ST stereochem allyl silane addn androstadiene gonadiene

IT Stereochemistry
(of addition reaction, of androstadiene and gonadiene derivs. with allyl organometallics)

IT Addition reaction
(of androstadiene and gonadiene derivs. with allyl organometallics, stereochem. of)

IT Addition reaction catalysts
(titanium or aluminum chloride, for allyl organometallics with androstadiene and gonadiene derivs.)

IT 116506-60-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with allyl organometallics, stereochem. of)

IT 976-71-6 115814-79-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with allyltrimethylsilane, stereochem. of)

IT 762-72-1, Allyltrimethylsilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with androstadienes and gonadiene derivative, stereochem. of)

IT 24850-33-7, Allyltributylstannane
RL: RCT (Reactant); RACT (Reactant or reagent)
(addition reaction of, with gonadienone derivative, stereochem. of)

IT 116506-63-9P 116506-65-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

IT 76685-44-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and partial catalytic hydrogenation of)

IT 60533-52-0P 76676-33-0P 116506-59-3P 116506-61-7P
116506-62-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

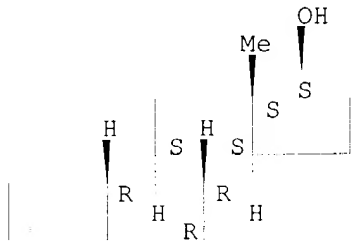
IT 116506-64-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation, hydrolysis, and mass spectrum of)

IT **116506-62-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 116506-62-8 HCAPLUS

CN Estr-4-en-3-one, 17-hydroxy-7-(2-propenyl)-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L49 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1971:420798 HCAPLUS
DN 75:20798
ED Entered STN: 12 May 1984
TI Antihormonal 7β-alkyl steroids
IN Babcock, John C.; Campbell, J. Allan
PA Upjohn Co.
SO Ger. Offen., 58 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07C
CC 32 (Steroids)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2043404	A	19710311	DE 1970-2043404	19700902
	ZA 7005567	A	19710428	ZA 1970-5567	19700812
	GB 1298974	A	19721206	GB 1970-1298974	19700813
	NL 7012967	A	19710305	NL 1970-12967	19700902
	FR 2070665	A5	19710917	FR 1970-31924	19700902
	FR 2070665	B1	19740614		
PRAI	US 1969-855035		19690903		

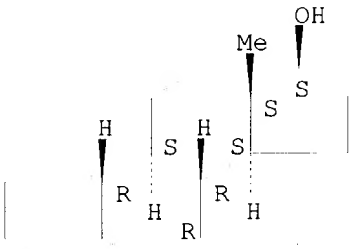
AB The title compds. are prepared by several methods. Thus, 6-dehydro-19-nortestosterone in THF was treated with CuCl in THF and 3M MeMgBr in ether to yield 7α-methyl-19-nortestosterone and mβ-methyl-19-nortestosterone (I). In a second process, 7β-methylestrone in MeOH was treated with H2O and NaBH4 to yield 7β-methylestradiol (II). A mixture of the 3-methyl ether of II in THF, tert-BuOH, and Li wire was reacted in liquid NH3 to yield 7β-methyl-3-methoxyestra-2,5(10)-dien-17β-ol, which was reacted with MeOH, H2O, and oxalic acid to yield 17β-hydroxy-7β-methylestr-5(10)-en-3-one. This was hydrolyzed in a mixture of MeOH, H2O, and 2.5N HCl to yield I. A third process using 19-hydroxyandrosta-4,6-diene-3,17-dione was described. Many other derivs. of the title compds. were also prepared, including 7α-ethyl-19-nortestosterone, m. 138.5-41.5°, [α]D 16° (CHCl3), and 7β-ethyl-19-nortestosterone, m. 146-8°.

ST antihormonal nortestosterones
IT Steroids, preparation
RL: PREP (Preparation)
(7β-alkyl)

IT	31022-20-5P	32224-02-5P	32224-03-6P	32224-04-7P	32224-05-8P
	32224-06-9P	32224-07-0P	32224-08-1P	**32297-29-3P**	
	32297-30-6P	32297-31-7P	32297-32-8P	32297-33-9P	32297-34-0P
	32297-35-1P	32297-36-2P	32297-37-3P	32297-38-4P	32297-39-5P
	32297-40-8P	32297-41-9P	32297-42-0P	32297-43-1P	32297-44-2P

32297-45-3P 32297-46-4P 32297-47-5P 32297-48-6P 32344-13-1P
32344-14-2P 32344-15-3P 32344-16-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **32297-29-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 32297-29-3 HCAPLUS
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-, (7α,17β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L49 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1965:9274 HCAPLUS
DN 62:9274
OREF 62:**1704c-d**
ED Entered STN: 22 Apr 2001
TI Totally synthetic steroid hormones. II. 13β-Alkylgona-1,3,5(10)-trienes, 13β-alkylgon-4-en-3-ones, and related compounds
AU Smith, Herchel; et al.
CS Univ. Manchester, UK
SO Journal of the Chemical Society, Abstracts (1964), (Nov.), 4472-92
CODEN: JCSAAZ; ISSN: 0590-9791
DT Journal
LA English
CC 42 (Steroids)
AB cf. CA 60, 581c. By using procedures previously developed for (±)-estrone, a variety of (±)-13β-alkylgona-1,3,5(10)-trienes and cognate compds. has been synthesized and converted into various (±)-13β-alkylgon-4-enes. Biol. activities are given for several compds. and in some cases compared with those of the corresponding (+)- and (-)-enantiomers. A series of related (±)-estranes has been totally synthesized for comparison in biol. activities with these gonanes and the corresponding estranes prepared from (+)-estrone. Preliminary accounts of some of this work have been given.
IT Steroids
(13β-alkyl, total synthesis of)
IT Muscles
Progestational hormones or principles
(13β-alkylgonane effect on)
IT Blood
(cholesterol in, 13β-alkylgonane effect on)
IT Optical rotatory dispersion
(of 13-alkylgon-4-en-3-ones)
IT Spectra, visible and ultraviolet
(of 13β-alkylgonanes)
IT 1,3-Cyclopentanedione, 2-[2-(3,4-dihydro-6-methoxy-1(2H)-naphthylidene)ethyl]-2-ethyl-, (±)-
1,3-Cyclopentanedione, 2-[2-[5-(benzyloxy)-3,4-dihydro-1(2H)-

naphthylidene]ethyl]-2-ethyl-, (±)-
10-Undecenoic acid, ester with 13-ethyl-17β-hydroxygon-4-en-3-one, (±)-
18,19-Dinor-17α-pregn-4-en-20-yn-3-one, 13-ethyl-17-hydroxy-, (+)-, (-)-
18,19-Dinor-17α-pregn-4-en-20-yn-3-one, 13-ethyl-17-hydroxy-, (+)-, (±)-
18,19-Dinor-17α-pregn-4-en-3-one, 13-ethyl-17-hydroxy-, (+)-, (-)-
18,19-Dinor-17α-pregn-4-en-3-one, 13-ethyl-17-hydroxy-, (+)-, (±)
18,19-Dinor-17α-pregna-1,3,5(10),9(11)-tetraen-17-ol, 13-methyl-3-methoxy-, (±)-
18,19-Dinor-17α-pregna-4,9-dien-20-yn-3-one, 17-hydroxy-13-propyl-, (±)-
19-Nor-17α-pregn-4-en-3-one, 17-hydroxy-, (±)-
19-Nor-17α-pregna-1,3,5(10),8-tetraen-17-ol, 3-methoxy-, (±)-
2(3H)-Chrysenone, 6a-ethyl-4,4a,4b,5,6,6a,7,8,9,10,10a,10b,11,12-tetradecahydro-7-hydroxy-, esters (±)-
8,14-Secogona-1,3,5(10),9(11)-tetraene-14,17-dione, 13-ethyl-3-methoxy-, (±)-
8,14-Secogona-1,3,5(10),9(11)-tetraene-14,17-dione, 3-(benzyloxy)-13-ethyl-, (±)-
Acetic acid, phenyl-, esters with 13-ethyl-17β-hydroxygon-4-en-3-one, (±)-
Decanoic acid, ester with 17aβ-hydroxy-13-propyl-D-homogon-4-en-3-one, (±)-
Decanoic acid, esters with 13-ethyl-17aβ-hydroxy-D-homogon-4-en-3-one, (±)
Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, (-)-, (+)-
Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, 10-undecenate, (±)-
Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, acetate, (-)-
Gon-4-en-3-one, 17β-hydroxy-13-propyl-, (-)-, (+)-
Gon-5(10)-en-3-one, 17β-allyl-13-ethyl-17-hydroxy-, (±)-
Gona-1,3,5(10),8,14-pentaen-17-one, 13-isobutyl-3-methoxy-, (±)-
Gona-1,3,5(10)-trien-17-one, 13-ethyl-3-hydroxy-, (+)-
Gona-1,3,5(10)-trien-17-one, 13-ethyl-3-hydroxy-, (-)-
Gona-1,3,5(10)-trien-17-one, 13-ethyl-3-methoxy-, (-)-
Gona-1,3,5(10)-trien-17β-ol, 13-ethyl-3-methoxy-, (-)-
Gona-1,3,5(10)-trien-17β-ol, 3-methoxy-13-propyl-, (+)-
Gona-1,3,5(10)-trien-17β-ol, 3-methoxy-13-propyl-, (-)-
Gona-1,3,5(10)-triene-3,17β-diol, 13-propyl-, (+)-
Gona-4,9-dien-3-one, 13-butyl-17β-hydroxy-, (±)-
Gona-4,9-dien-3-one, 17β-hydroxy-13-propyl-17-(1-propynyl)-, (±)-
Hydrocinnamic acid, esters, with 13-ethyl-17aβ-hydroxy-D-nomogon-4-en-3-one, (±)-
Hydrocinnamic acid, esters, with 17aβ-hydroxy-13-propyl-D-homogon-4-en-3-one, (±)-
Isovaleric acid, ester with 13-ethyl-17β-hydroxygon-4-en-3-one, (±)-
Succinic acid, α-ester with 13-ethyl-17β-hydroxygon-4-en-3-one, (±)-
D-Homo-18,19-dinor-17aα-pregn-4-en-20-yn-3-one, 13-ethyl-17a-hydroxy-, (±)-
D-Homogon-4-en-3-one, 13-ethyl-17aβ-hydroxy-, decanoate, (±)-
D-Homogon-4-en-3-one, 13-ethyl-17aβ-hydroxy-17a-methyl-, (±)-
D-Homogona-1,3,5(10)-trien-17a-one, 13-ethyl-3-methoxy-, (±)-
D-Homogona-4,9-dien-3-one, 13-ethyl-17aβ-hydroxy-, (±)-

IT 501-52-0, Hydrocinnamic acid
(esters, with steroids)

IT 57-88-5, Cholesterol
(in blood, 13β-alkylgonane effect on)

IT 791-39-9, Gon-4-en-17-one, 13-ethyl-, (±)- 793-54-4, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, (±)- 793-56-6, Gona-1,3,5(10)-triene-3,17β-diol, 13-ethyl-, (±)- 793-57-7, Gona-4,9-dien-3-one,

13-ethyl-17β-hydroxy-, (±)- 793-58-8, Gon-5(10)-ene-3,17-dione, 13-ethyl-, (±)- 795-32-4, 18,19-Dinor-17α-pregn-4-en-17-ol, 13-ethyl-, (±)- 795-33-5, 18,19-Dinor-17α-pregn-4-en-20-yn-17-ol, 13-ethyl-, (±)- 795-48-2, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-17-methyl-, (±)- 795-49-3, D-Homogon-5(10)-en-3-one, 13-ethyl-17aβ-hydroxy-, (±)- 797-60-4, 18,19-Dinor-17α-pregna-4,9-dien-3-one, 13-ethyl-17-hydroxy-, (±)- 797-61-5, 18,19-Dinor-17α-pregna-4,20-dien-3-one, 13-ethyl-17-hydroxy-, (±)- 797-65-9, 18,19-Dinor-17α-pregna-4,9-dien-20-yn-3-one, 13-ethyl-17-hydroxy-, (±) 797-85-3, Gona-4,9-dien-3-one, 17β-hydroxy-17-methyl-13-propyl-, (±)- 797-86-4, Gona-1,3,5(10),8,14-pentaen-17-one, 13-isopropyl-3-methoxy-, (±)- 797-87-5, D-Homogona-1,3,5(10)-trien-17aβ-ol, 13-ethyl-3-methoxy-, (±)- 797-90-0, Gona-2,5(10)-dien-17β-ol, 3-methoxy-13-propyl-, (±)- 797-91-1, Gona-1,3,5(10),8-tetraen-17β-ol, 3-methoxy-13-propyl-, (±)- 797-92-2, Gona-2,5(10)-dien-17-one, 3-methoxy-13-propyl-, (±)- 799-42-8, Gona-4,9-dien-3-one, 13-ethyl-17β-hydroxy-17-(1-propynyl)-, (±)- 799-43-9, 18,19-Dinor-17α-pregna-2,5(10)-dien-20-yn-17-ol, 13-ethyl-3-methoxy-, (±)- 799-72-4, Gona-1,3,5(10),8-tetraen-17-one, 13-butyl-3-methoxy-, (±)- 799-73-5, Gona-1,3,5(10),8,14-pentaen-17-one, 13-butyl-3-methoxy-, (±)- 799-74-6, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, cyclic ethylene mercaptole, (±)- 801-41-2, 18,19-Dinor-17α-pregn-4-en-17-ol, 13-ethyl-, acetate, (±)- 801-42-3, Gon-4-en-3-one, 17α-allyl-17-hydroxy-13-propyl-, (±)- 801-43-4, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-17-(2-methylallyl)-, (±)- 801-69-4, Gona-1,3,5(10),8,14-pentaen-17-one, 13-isopentyl-3-methoxy-, (±)- 803-07-6, Gona-2,5(10)-dien-17β-ol, 3-methoxy-13-propyl-17-(1-propynyl)-, (±)- 804-97-7, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, isovalerate, (±)- 806-09-7, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, hydrogen succinate, (±)- 810-60-6, Gona-1,3,5(10),8,14-pentaen-17-one, 13-hexadecyl-3-methoxy-, (±)- 823-36-9, 1,3-Cyclopentanedione, 2-ethyl- 824-19-1, 1,3-Cyclopentanedione, 2-isopropyl- 824-26-0, 1,3-Cyclopentanedione, 2-propyl- 825-31-0, 1,3-Cyclopentanedione, 2-butyl- 827-03-2, 1,3-Cyclopentanedione, 2-isopentyl- 829-34-5, 1,3-Cyclopentanedione, 2-ethyl-, semicarbazone 845-85-2, 9β-Gona-1,3,5(10)-trien-17-one, 13-ethyl-3-hydroxy-, (±)- 845-88-5, Gona-1,3,5(10),8-tetraen-17-one, 13-ethyl-3-hydroxy-, (±)- 845-89-6, Gona-1,3,5(10),8,14-pentaen-17-one, 13-ethyl-3-hydroxy-, (±)- 847-94-9, D-Homogon-4-en-3-one, 13-ethyl-17aβ-hydroxy-, (±)- 847-97-2, Gona-4,9-dien-3-one, 17β-hydroxy-13-propyl-, (±)- 848-01-1, Gona-1,3,5(10)-trien-17β-ol, 13-ethyl-3-methoxy-, (±)- 848-03-3, Gona-1,3,5(10),8-tetraen-17β-ol, 13-ethyl-3-methoxy-, (±)- 848-05-5, Gona-1,3,5(10),9(11)-tetraen-17-one, 13-ethyl-3-methoxy-, (±)- 848-07-7, Gona-1,3,5(10),8,14-pentaen-17-one, 13-ethyl-3-methoxy-, (±)- 850-75-9, Gon-4-en-3-one, 17β-hydroxy-13-isobutyl-, (±)- 852-01-7, 1,3-Cyclopentanedione, 2-hexadecyl- 852-76-6, Gon-4-en-17β-ol, 17-allyl-13-propyl-, (±)- 852-80-2, 18,19-Dinor-17α-pregna-2,5(10)-dien-17-ol, 13-ethyl-3-methoxy-, (±) 852-81-3, 18,19-Dinor-17α-pregna-1,3,5(10)-trien-17-ol, 13-ethyl-3-methoxy-, (±)- 852-82-4, 18,19-Dinor-17α-pregna-1,3,5(10)-trien-20-yn-17-ol, 13-ethyl-3-methoxy-, (±) 852-84-6, 18,19-Dinor-17α-pregna-1,3,5(10),8-tetraen-17-ol, 13-ethyl-3-methoxy-, (±)- 852-96-0, Gona-2,5(10)-dien-17β-ol, 3-methoxy-17-methyl-13-propyl-, (±)- 852-99-3, Gona-1,3,5(10),8-tetraen-17-one, 13-ethyl-3-hydroxy-, acetate, (±)- 854-53-5, Gona-1,3,5(10),8,14-pentaen-17-one, 13-ethyl-3-methoxy-, cyclic ethylene acetal, (±)- 854-60-4, D-Homo-18,19-dinor-17aα-pregn-4-en-20-yn-3-one, 17a-hydroxy-13-propyl-, (±)- 854-61-5, D-Homo-18,19-dinor-17aα-pregna-1,3,5(10)-trien-17a-ol, 13-ethyl-3-methoxy-, (±)- 854-62-6, Gon-5(10)-en-3-one, 17β-hydroxy-13-propyl-17-(1-propynyl)-, (±)-

854-66-0, 18,19-Dinor-17α-pregna-1,3,5(10)-trien-20-yn-17-ol, 3-methoxy-13-propyl-, (±) 854-67-1, Gon-5(10)-en-3-one, 13-ethyl-17β-hydroxy-17-(2-methylallyl)-, (±)- 854-68-2, Gona-1,3,5(10)-trien-17β-ol, 13-ethyl-3-methoxy-17-propyl-, (±)- 854-69-3, Gona-1,3,5(10)-trien-17β-ol, 17-allyl-13-ethyl-3-methoxy-, (±)- 854-70-6, Gona-2,5(10)-dien-17β-ol, 13-ethyl-3-methoxy-17-(1-propynyl)-, (±)- 854-72-8, Gona-1,3,5(10),8-tetraen-17β-ol, 17-allyl-13-ethyl-3-methoxy-, (±)- 856-79-1, Gona-2,5(10)-dien-17β-ol, 13-ethyl-3-methoxy-17-(2-methylallyl)-, (±)- 859-74-5, Gona-1,3,5(10),8,14-pentaen-17-one, 3-(benzyloxy)-13-ethyl-, (±)- 863-45-6, D-Homogon-4-en-3-one, 17aβ-hydroxy-13-propyl-, hydrocinnamate, (±)- 896-51-5, Gona-1,3,5(10),9(11)-tetraen-17-one, 13-ethyl-3-hydroxy-, (±)- 900-88-9, 18,19-Dinor-17α-pregn-5(10)-en-3-one, 13-ethyl-17-hydroxy-, (±)- 901-17-7, Gona-2,5(10)-dien-17β-ol, 13-ethyl-3-methoxy-17-methyl-, (±)- 901-20-2, D-Homogon-4-en-3-one, 17aβ-hydroxy-13-propyl-, (±)- 901-22-4, Gon-4-en-3-one, 13-butyl-17β-hydroxy-, (±)- 902-68-1, D-Homo-18,19-dinor-17aα-pregn-5(10)-en-3-one, 13-ethyl-17a-hydroxy-, (±)- 902-69-2, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-17-propyl-, (±)- 904-88-1, Gon-4-en-3-one, 17β-hydroxy-13,17-dipropyl-, (±)- 904-89-2, Gon-4-en-3-one, 17β-hydroxy-13-propyl-17-(1-propynyl)-, (±)- 904-90-5, Gona-2,5(10)-dien-17β-ol, 13-ethyl-3-methoxy-17-propyl-, (±)- 904-92-7, Gona-2,5(10)-dien-17β-ol, 17-allyl-13-ethyl-3-methoxy-, (±)- 906-62-7, Gona-1,3,5(10)-trien-17β-ol, 17-allyl-3-methoxy-13-propyl-, (±)- 912-31-2, Gon-4-en-3-one, 17β-hydroxy-13-propyl-, benzoate, (±)- 913-96-2, D-Homogon-4-en-3-one, 13-ethyl-17aβ-hydroxy-, hydrocinnamate, (±)- 968-74-1, Gona-1,3,5(10)-trien-17-one, 13-ethyl-3-methoxy-, (±)- 974-57-2, Gona-1,3,5(10)-trien-17β-ol, 13-butyl-3-methoxy-, (±)- 974-58-3, Gona-1,3,5(10),8,14-pentaen-17-one, 13-ethyl-3-hydroxy-, acetate, (±)- 1038-28-4, Gona-2,5(10)-dien-17β-ol, 13-ethyl-3-methoxy, (±)- 1041-83-4, Gon-4-en-17β-ol, 17-allyl-13-ethyl-, (±)- 1042-20-2, Gon-5(10)-en-3-one, 17β-hydroxy-17-methyl-13-propyl-, (±)- 1044-95-7, 18,19-Dinor-17α-pregna-4,20-dien-3-one, 17-hydroxy-13-propyl-, (±)- 1045-40-5, Gona-1,3,5(10)-trien-17β-ol, 3-methoxy-17-methyl-13-propyl-, (±)- 1045-43-8, D-Homogona-1,3,5(10)-trien-17aβ-ol, 3-methoxy-13-propyl-, (±)- 1095-74-5, 18,19-Dinor-17α-pregn-5(10)-en-20-yn-3-one, 13-ethyl-17-hydroxy-, (±)- 1259-06-9, D-Homogon-4-en-3-one, 17aβ-hydroxy-13-propyl-, decanoate, (±)- 1446-03-3, D-Homo-18,19-dinor-17aα-pregn-5(10)-en-20-yn-3-one, 13-ethyl-17a-hydroxy-, (±)- 1780-22-9, 18,19-Dinor-17α-pregna-1,3,5(10),8-tetraen-20-yn-17-ol, 13-ethyl-3-methoxy-, (±) 2322-76-1, Gona-1,3,5(10)-trien-17-one, 13-butyl-3-methoxy-, (±)- 2322-83-0, Gona-1,3,5(10),8,14-pentaen-17-one, 3-methoxy-13-propyl-, (±)- 2322-85-2, Gona-1,3,5(10)-trien-17-one, 3-methoxy-13-propyl-, (±)- 2322-86-3, Gona-1,3,5(10),8,14-pentaen-17-one, 3-methoxy-13-propyl-, cyclic ethylene acetal, (±)- 2322-95-4, Gona-1,3,5(10),9(11)-tetraen-17-one, 13-butyl-3-methoxy-, (±)- 2322-96-5, Gona-1,3,5(10)-trien-17-one, 13-butyl-3-hydroxy-, (±)- 2627-87-4, Gona-1,3,5(10)-trien-17-one, 3-methoxy-13-propyl-, cyclic ethylene acetal, (±)- 2627-90-9, Gona-1,3,5(10),8-tetraen-17-one, 3-methoxy-13-propyl-, (±)- 2627-91-0, Gona-1,3,5(10)-trien-17-one, 3-hydroxy-13-propyl-, (±)- 2753-85-7, Gona-1,3,5(10),8-tetraen-17-one, 3-methoxy-13-propyl-, cyclic ethylene acetal, (±)- 4472-76-8, D-Homo-18,19-dinor-17aα-pregn-4-en-3-one, 13-ethyl-17a-hydroxy-, (±)- 4624-46-8, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, benzoate, (±)- 4624-47-9, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, nicotinate, (±)- 4659-60-3, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, decanoate, (±)- 4659-62-5, Cyclopentanepropionic acid, ester with 13-ethyl-17β-hydroxygon-4-en-3-one, (±)- 4659-63-6, Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, phenylacetate, (±)- 4659-64-7,

Gon-4-en-3-one, 13-ethyl-17β-hydroxy-, hydrocinnamate, (±)-
4927-24-6, Gon-4-en-17-one, 13-propyl-, (±)- 5010-14-0,
18,19-Dinor-17α-pregn-4-en-20-yn-17-ol, 13-propyl-, (±)-
5941-92-4, Gona-1,3,5(10),8-tetraen-17-one, 13-ethyl-3-methoxy-, (±)-
5972-58-7, Estr-4-en-3-one, 17β-hydroxy-, (±)- 6039-81-2,
Gona-1,3,5(10)-trien-17β-ol, 13-ethyl-3-methoxy-6β-methyl-,
(±)- 7093-92-7, 19-Nor-17α-pregna-1,3,5(10),8-tetraen-20-yn-17-
ol, 3-methoxy-, (±)- 10161-26-9, 18,19-Dinor-17α-pregna-
1,3,5(10),9(11)-tetraen-20-yn-17-ol, 13-ethyl-3-methoxy-, (±)
10426-43-4, Gon-4-en-3-one, 17β-hydroxy-13-propyl-, (±)-
13563-37-6, Gon-4-en-3-one, 17β-hydroxy-17-methyl-13-propyl-, (±)-
13563-38-7, 18,19-Dinor-17α-pregn-5(10)-en-20-yn-3-one,
17-hydroxy-13-propyl-, (±)- 13563-39-8, 18,19-Dinor-17α-pregn-4-
en-20-yn-3-one, 17-hydroxy-13-propyl-, (±)- 13563-42-3,
18,19-Dinor-17α-pregn-5(10)-en-20-yn-3-one, 13-butyl-17-hydroxy-,
(±)- 13563-43-4, 18,19-Dinor-17α-pregn-4-en-20-yn-3-one,
13-butyl-17-hydroxy-, (±)- 13563-49-0, Gon-4-en-3-one,
17β-hydroxy-17-(2-methylallyl)-13-propyl-, (±)- 14531-24-9,
Gona-4,9-dien-3-one, 13-ethyl-17β-hydroxy-, hydrocinnamate, (±)-
14531-25-0, Gona-4,9-dien-3-one, 17β-hydroxy-13-propyl-,
hydrocinnamate, (±)- 14531-93-2, Gona-4,9-diene-3,17-dione,
13-propyl-, (±)- 15335-22-5, D-Homogona-1,3,5(10),8,14-pentaen-17a-
one, 13-ethyl-3-methoxy-, (±)- 15335-24-7, D-Homogona-1,3,5(10),8-
tetraen-17aβ-ol, 13-ethyl-3-methoxy-, (±)- 15335-29-2,
D-Homogona-1,3,5(10),8,14-pentaen-17a-one, 3-methoxy-13-propyl-, (±)-
15335-30-5, D-Homogona-1,3,5(10),8-tetraen-17a-one, 3-methoxy-13-propyl-,
(±)- 15335-31-6, D-Homogona-1,3,5(10),8-tetraen-17aβ-ol,
3-methoxy-13-propyl-, (±)- 17688-27-6, D-Homogona-1,3,5(10),8-tetraen-
17a-one, 13-ethyl-3-methoxy-, (±)- 19882-69-0, Gona-1,3,5(10),8-
tetraen-17β-ol, 13-ethyl-3-methoxy-17-propyl- 20817-16-7,
Gona-1,3,5(10),8-tetraen-17-one, 13-isobutyl-3-methoxy-, (±)-
20817-27-0, Gona-1,3,5(10),8-tetraen-17β-ol, 13-butyl-3-methoxy-,
(±)- 20817-34-9, Gona-1,3,5(10),8-tetraen-17-one,
13-ethyl-3-methoxy-, cyclic ethylene acetal-, (±)- 20827-30-9,
Gon-5(10)-en-3-one, 17β-hydroxy-13-propyl-, (±)- 20827-31-0,
Gon-5(10)-en-3-one, 13-butyl-17β-hydroxy-, (±)- 20827-33-2,
Gon-5(10)-en-3-one, 17β-hydroxy-13-isobutyl-, (±)- 20827-40-1,
Gon-5(10)-en-3-one, 13-ethyl-17β-hydroxy-17-(1-propynyl)-, (±)-
20986-16-7, Gon-5(10)-en-3-one, 13-ethyl-17β-hydroxy-, (±)-
23944-76-5, 19-Nor-17α-pregn-4-en-20-yn-3-one, 17-hydroxy-, (±)-
23944-78-7, 19-Nor-17α-pregn-4-en-20-yn-3-one, 17-hydroxy-, acetate,
(±)- 25918-90-5, 19-Nor-17α-pregna-1,3,5(10)-trien-20-yn-17-ol,
3-methoxy-, (±)- 25918-97-2, 19-Nor-17α-pregn-5(10)-en-20-yn-3-
one, 17-hydroxy-, (±)- 32695-91-3, Gona-1,3,5(10)-trien-17-one,
13-ethyl-3-methoxy-, cyclic ethylene acetal, (±)- 33811-44-8,
Gon-4-en-3-one, 17β-hydroxy-13-propyl-, hydrocinnamate, (±)-
33820-77-8, Gona-1,3,5(10)-trien-17β-ol, 13-isobutyl-3-methoxy-,
(±)- 99781-25-6, D-Homogona-4,9-diene-3,17a-dione, 13-ethyl-, (±)-
(preparation of)

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L52  ANSWER 1 OF 6  USPATFULL on STN
AN     2003:127671  USPATFULL
TI     Orally active androgens
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IN Loozen, Hubert Jan Jozef, Uden, NETHERLANDS
Leysen, Dirk, Lommel, BELGIUM
Louw, Jaap van der, Oss, NETHERLANDS
PI US 2003087886 A1 20030508
AI US 2002-280038 A1 20021024 (10)
RLI Division of Ser. No. US 2001-918626, filed on 31 Jul 2001, PENDING
Division of Ser. No. US 2000-613350, filed on 11 Jul 2000, GRANTED, Pat. No. US 6313108
PRAI EP 1999-202348 19990716
DT Utility
FS APPLICATION
LREP INTERVET INC, 405 STATE STREET, PO BOX 318, MILLSBORO, DE, 19966
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1098
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel, orally active androgens are 7α-substituted Δ.sup.14-nandrolone derivatives. The compounds satisfy the general formula: ##STR1##

wherein

R.sub.1 is O, (H,H), (H,OR), NOR, with R being hydrogen, (C.sub.1-6) alkyl, or (C,.sub.1-6) acyl;

R.sub.2 is selected from the group consisting of (C.sub.2-4) alkyl, (C.sub.2-4) alkenyl, or (C.sub.2-4) alkynyl, each optionally substituted by halogen; or

R.sub.2 is cyclopropyl, or cyclopropenyl, each optionally substituted by (C.sub.1-2) alkyl, or halogen;

R.sub.3 is hydrogen, (C.sub.1-2) alkyl, or ethenyl;

R.sub.4 is (C.sub.1-2) alkyl;

R.sub.5 is hydrogen, or (C.sub.1-15) acyl;

and the dotted lines indicate optional bonds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **293303-46-5P 293303-47-6P 300542-24-9P 300542-25-0P**
(preparation of orally active androgens)

L52 ANSWER 2 OF 6 USPATFULL on STN
AN 2002:37889 USPATFULL
TI Orally active androgens
IN Loozen, Hubert Jan Jozef, Uden, NETHERLANDS
Leysen, Dirk, Lommel, BELGIUM
Louw, Jaap van der, Oss, NETHERLANDS
PI US 2002022609 A1 20020221
US 6541465 B2 20030401
AI US 2001-918626 A1 20010731 (9)
RLI Division of Ser. No. US 2000-613350, filed on 11 Jul 2000, GRANTED, Pat. No. US 6313108
PRAI EP 1999-202348 19990716
DT Utility
FS APPLICATION
LREP WILLIAM M. BLACKSTONE, AKZO NOBEL PATENT DEPARTMENT, SUITE 206, 1300 PICCARD DRIVE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 9

ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel, orally active androgens are 7α-substituted Δ.sup.14-nandrolone derivatives. The compounds satisfy the general formula: ##STR1##

wherein

R.sub.1 is O, (H,H), (H,OR), NOR, with R being hydrogen, (C.sub.1-6) alkyl, or (C.sub.1-6) acyl;

R.sub.2 is selected from the group consisting of (C.sub.2-4) alkyl, (C.sub.2-4) alkenyl, or (C.sub.2-4) alkynyl, each optionally substituted by halogen; or

R.sub.2 is cyclopropyl, or cyclopropenyl, each optionally substituted by (C.sub.1-2) alkyl, or halogen;

R.sub.3 is hydrogen, (C.sub.1-2) alkyl, or ethenyl;

R.sub.4 is (C.sub.1-2) alkyl;

R.sub.5 is hydrogen, or (C.sub.1-15) acyl;

and the dotted lines indicate optional bonds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **293303-46-5P 293303-47-6P 300542-24-9P 300542-25-0P**
(preparation of orally active androgens)

L52 ANSWER 3 OF 6 USPATFULL on STN
AN 2001:197077 USPATFULL
TI Steroid compounds having contraceptive and anti-osteoporosis activity
IN Loozen, Hubert Jan Jozef, Uden, Netherlands
PA Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)
PI US 6313180 B1 20011106
AI US 2000-538783 20000330 (9)
RLI Continuation of Ser. No. US 1998-26348, filed on 19 Feb 1998, now patented, Pat. No. US 6077873
PRAI EP 1997-102884 19970221
DT Utility
FS GRANTED
EXNAM Primary Examiner: Badio, Barbara P.
LREP Sullivan, Michael G.
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 1197
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a steroid compound having the formula (I) ##STR1##

comprising a ring E, said ring sharing carbon atoms at position 16 and 17 with the five-membered ring D and being α with respect to said D-ring. In addition, the carbon atom at position 17 is substituted with an oxygen atom-comprising group through a CO bond. The invention also relates to a pharmaceutical composition comprising said steroid compound. The steroid compounds of the present invention are very suitable for use in the prevention or treatment of peri-menopausal or menopausal complaints, more preferably the prevention or treatment of

osteoporosis. Furthermore, the steroid compounds of the present invention can be used for contraceptive purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **213889-77-1P**
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)

L52 ANSWER 4 OF 6 USPATFULL on STN
AN 2001:197006 USPATFULL
TI Orally active androgens
IN Loozen, Hubert Jan Jozef, Uden, Netherlands
Leysen, Dirk, Lommel, Belgium
van der Louw, Jaap, Oss, Netherlands
PA Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)
PI US 6313108 B1 20011106
AI US 2000-613350 20000711 (9)
PRAI EP 1999-202348 19990716
DT Utility
FS GRANTED
EXNAM Primary Examiner: Qazi, Sabiha
LREP Blackstone, William M.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1084
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel, orally active androgens are 7α-substituted Δ.sup.14 -nandrolone derivatives. The compounds satisfy the general formula: ##STR1##

wherein

R.sub.1 is O, (H,H), (H,OR), NOR, with R being hydrogen, (C.sub.1-6) alkyl, or (C.sub.1-6) acyl;

R.sub.2 is selected from the group consisting of (C.sub.2-4) alkyl, (C.sub.2-4) alkenyl, or (C.sub.2-4) alkynyl, each optionally substituted by halogen; or

R.sub.2 is cyclopropyl, or cyclopropenyl, each optionally substituted by (C.sub.1-2) alkyl, or halogen;

R.sub.3 is hydrogen, (C.sub.1-2) alkyl, or ethenyl;

R.sub.4 is (C.sub.1-2) alkyl;

R.sub.5 is hydrogen, or (C.sub.1-15) acyl;

and the dotted lines indicate optional bonds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **293303-46-5P 293303-47-6P 300542-24-9P 300542-25-0P**
(preparation of orally active androgens)

L52 ANSWER 5 OF 6 USPATFULL on STN
AN 2000:77388 USPATFULL
TI Steroid compounds having contraceptive and anti-osteoporosis activity
IN Loozen, Hubert Jan Jozef, Uden, Netherlands
PA Akzo Nobel N.V., Arnhem, Netherlands (non-U.S. corporation)
PI US 6077873 20000620
AI US 1998-26348 19980219 (9)

PRAI EP 1997-102884 19970221
DT Utility
FS Granted
EXNAM Primary Examiner: Badio, Barbara
LREP Sullivan, Michael G.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 929
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a steroid compound having the formula (I) ##STR1## comprising a ring E, said ring sharing carbon atoms at position 16 and 17 with the five-membered ring D and being α with respect to said D-ring. In addition, the carbon atom at position 17 is substituted with an oxygen atom-comprising group through a CO bond. The invention also relates to a pharmaceutical composition comprising said steroid compound. The steroid compounds of the present invention are very suitable for use in the prevention or treatment of peri-menopausal or menopausal complaints, more preferably the prevention or treatment of osteoporosis. Furthermore, the steroid compounds of the present invention can be used for contraceptive purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **213889-77-1P**
(preparation of steroid compds. having contraceptive and antiosteoporosis activity)

L52 ANSWER 6 OF 6 USPAT2 on STN
AN 2002:37889 USPAT2
TI Orally active androgens
IN Loozen, Hubert Jan Jozef, Uden, NETHERLANDS
Leysen, Dirk, Lommel, BELGIUM
van der Louw, Jaap, Oss, NETHERLANDS
PA Akzo Nobel N.V., Arnhem, NETHERLANDS (non-U.S. corporation)
PI US 6541465 B2 20030401
AI US 2001-918626 20010731 (9)
RLI Division of Ser. No. US 2000-613350, filed on 11 Jul 2000, now patented, Pat. No. US 6313108
PRAI EP 1999-202348 19990716
DT Utility
FS GRANTED
EXNAM Primary Examiner: Qazi, Sabiha
LREP Ramey, III, William P., Blackstone, William M.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 1065
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel, orally active androgens are 7α-substituted Δ.sup.14-nandrolone derivatives. The compounds satisfy the general formula: ##STR1##

wherein

R.sub.1 is O, (H,H), (H,OR), NOR, with R being hydrogen, (C.sub.1-6) alkyl, or (C.sub.1-6) acyl;

R.sub.2 is selected from the group consisting of (C.sub.2-4) alkyl, (C.sub.2-4) alkenyl, or (C.sub.2-4) alkynyl, each optionally substituted by halogen; or

R.sub.2 is cyclopropyl, or cyclopropenyl, each optionally substituted by (C.sub.1-2) alkyl, or halogen;

R.sub.3 is hydrogen, (C.sub.1-2) alkyl, or ethenyl;

R.sub.4 is (C.sub.1-2) alkyl;

R.sub.5 is hydrogen, or (C.sub.1-15) acyl;

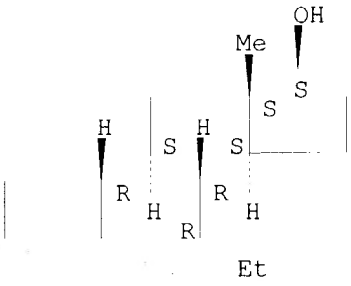
and the dotted lines indicate optional bonds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **293303-46-5P 293303-47-6P 300542-24-9P**
300542-25-0P
(preparation of orally active androgens)

=>

FS STEREOSEARCH
MF C20 H30 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:281951

REFERENCE 2: 75:20798

=> fil hcaold
FILE 'HCAOLD' ENTERED AT 09:44:58 ON 16 DEC 2003
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PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGlstRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> => d all hitstr l44

L44 ANSWER 1 OF 1 HCAOLD COPYRIGHT 2003 ACS on STN
AN CA62:1704c CAOLD
TI totally synthetic steroid hormones - (II) 13β-alkylgona-1,3,5(10)-trienes, 13β-alkygon-4-en-3-ones, and related compds.
AU Smith, Herchel; et al.
IT 791-39-9 793-55-5 795-50-6 797-58-0 797-86-4 797-89-7
797-90-0 797-92-2 799-42-8 799-68-8 799-71-3 801-42-3
801-43-4 801-69-4 802-77-7 803-07-6 804-97-7 806-09-7
807-23-8 808-27-5 808-89-9 808-90-2 810-07-1 810-60-6
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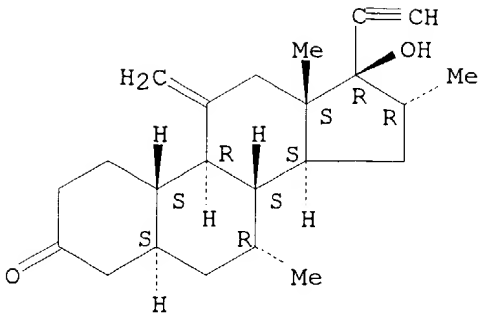

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L8 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:64010 CAPLUS
DOCUMENT NUMBER: 134:101064
TITLE: Preparation of orally active androgens
INVENTOR(S): Loozen, Hubert Jan Jozef; Leysen, Dirk; Van der Louw, Jaap
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005806	A1	20010125	WO 2000-EP6544	20000710
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000012489	A	20020402	BR 2000-12489	20000710
EP 1203011	A1	20020508	EP 2000-953032	20000710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003505394	T2	20030212	JP 2001-511464	20000710
NZ 516525	A	20030630	NZ 2000-516525	20000710
US 6313108	B1	20011106	US 2000-613350	20000711
US 2002022609	A1	20020221	US 2001-918626	20010731
US 6541465	B2	20030401		
NO 2002000222	A	20020125	NO 2002-222	20020115
US 2003087886	A1	20030508	US 2002-280038	20021024

PRIORITY APPLN. INFO.:

EP 1999-202348	A	19990716
WO 2000-EP6544	W	20000710
US 2000-613350	A3	20000711
US 2001-918626	A3	20010731

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 09	CA/CAplus records now contain indexing from 1907 to the present
NEWS	4	AUG 05	New pricing for EUROPATFULL and PCTFULL effective August 1, 2003
NEWS	5	AUG 13	Field Availability (/FA) field enhanced in BEILSTEIN
NEWS	6	AUG 18	Data available for download as a PDF in RDISCLOSURE
NEWS	7	AUG 18	Simultaneous left and right truncation added to PASCAL
NEWS	8	AUG 18	FROSTI and KOSMET enhanced with Simultaneous Left and Righ Truncation
NEWS	9	AUG 18	Simultaneous left and right truncation added to ANABSTR
NEWS	10	SEP 22	DIPPR file reloaded
NEWS	11	DEC 08	INPADOC: Legal Status data reloaded
NEWS	12	SEP 29	DISSABS now available on STN
NEWS	13	OCT 10	PCTFULL: Two new display fields added
NEWS	14	OCT 21	BIOSIS file reloaded and enhanced
NEWS	15	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS	16	NOV 24	MSDS-CCOHS file reloaded
NEWS	17	DEC 08	CABA reloaded with left truncation
NEWS	18	DEC 08	IMS file names changed
NEWS	19	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS	20	DEC 09	STN Entry Date available for display in REGISTRY and CA/CAplus

NEWS EXPRESS	NOVEMBER 14 CURRENT WINDOWS VERSION IS V6.01c, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:43:39 ON 13 DEC 2003

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 13:44:13 ON 13 DEC 2003
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STRUCTURE FILE UPDATES:   12 DEC 2003  HIGHEST RN 626603-92-7
DICTIONARY FILE UPDATES:  12 DEC 2003  HIGHEST RN 626603-92-7

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading 09937274.str

L1       STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 13:44:31 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -  27145 TO ITERATE

  3.7% PROCESSED    1000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       533060 TO   552740
PROJECTED ANSWERS:               0 TO        0

L2             0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 13:44:38 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 546299 TO ITERATE
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73.2% PROCESSED 400000 ITERATIONS 912 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.04

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BATCH **COMPLETE**
PROJECTED ITERATIONS: 546299 TO 546299
PROJECTED ANSWERS: 1140 TO 1350

L3 912 SEA SSS FUL L1

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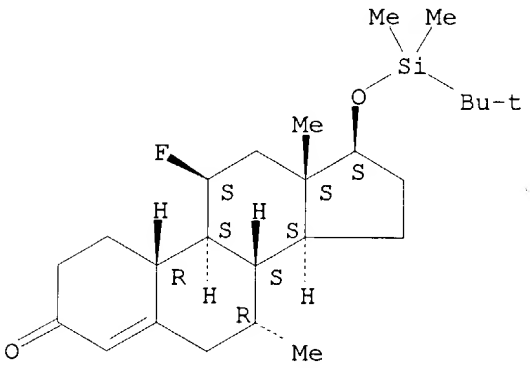
L3 ANSWER 1 OF 912 REGISTRY COPYRIGHT 2003 ACS on STN
RN 607716-57-4 REGISTRY
CN Estr-4-en-3-one, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-11-fluoro-7-methyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H41 F O2 Si
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

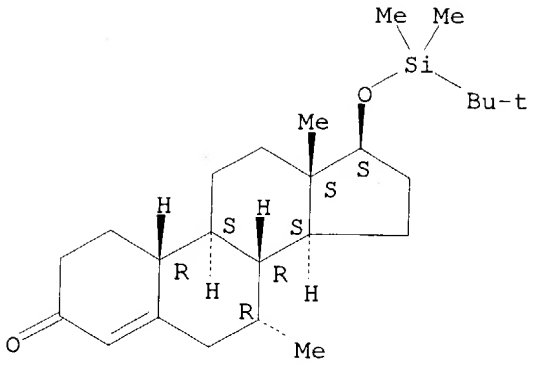


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 2 OF 912 REGISTRY COPYRIGHT 2003 ACS on STN
RN 607716-56-3 REGISTRY
CN Estr-4-en-3-one, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H42 O2 Si
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

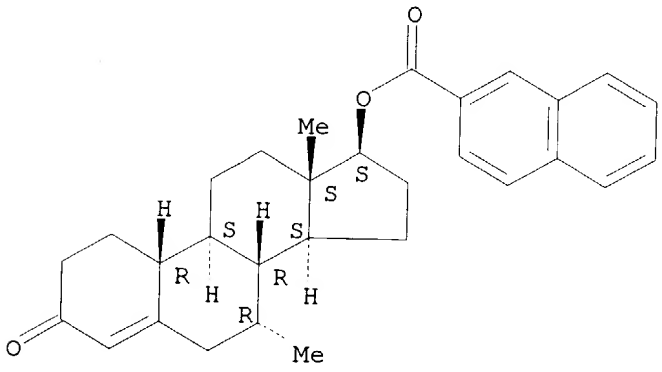


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 3 OF 912 REGISTRY COPYRIGHT 2003 ACS on STN
RN 595563-11-4 REGISTRY
CN Estr-4-en-3-one, 7-methyl-17-[(2-naphthalenylcarbonyl)oxy]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C30 H34 O3
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	153.99	154.20

FILE 'CAPLUS' ENTERED AT 13:46:00 ON 13 DEC 2003
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FILE COVERS 1907 - 13 Dec 2003 VOL 139 ISS 25
FILE LAST UPDATED: 12 Dec 2003 (20031212/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4          264 L3

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            282 PROPADIENYL
            100 1,2-PROPADIENYL
                  (1(W)2(W)PROPADIENYL)
L5            1 L4 AND 1,2-PROPADIENYL

=> d l5 all

L5   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2003 ACS on STN
AN   1982:104601  CAPLUS
DN   96:104601
ED   Entered STN:  12 May 1984
TI   10-(1,2-Propadienyl) steroids as
     irreversible aromatase inhibitors
IN   Metcalf, Brian W.; Johnston, J. O'Neal
PA   Merrell Dow Pharmaceuticals, Inc., USA
SO   U.S., 13 pp.
     CODEN: USXXAM
DT   Patent
LA   English
IC   A61K031-56; A61K031-58
NCL  424242000
CC   32-4 (Steroids)
FAN.CNT 1
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PI	US 4289762	A	19810915	US 1980-163453	19800627
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	CA 1173432	A1	19840828	CA 1981-380342	19810622
	IL 63142	A1	19850430	IL 1981-63142	19810622
	DE 3124719	A1	19820318	DE 1981-3124719	19810624
	DE 3124719	C2	19940303		
	SE 8103988	A	19811228	SE 1981-3988	19810625
	SE 448878	B	19870323		
	SE 448878	C	19870702		
	CH 647532	A	19850131	CH 1981-4213	19810625
	DK 8102844	A	19811228	DK 1981-2844	19810626
	DK 163129	B	19920120		
	DK 163129	C	19920609		
	BE 889404	A1	19811228	BE 1981-205232	19810626
	FR 2485544	A1	19811231	FR 1981-12643	19810626
	FR 2485544	B1	19831216		
	GB 2078750	A	19820113	GB 1981-19814	19810626
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	AU 539215	B2	19840913		
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	NO 156694	B	19870727		
	NO 156694	C	19871104		
	NO 8601695	A	19830124	NO 1986-1695	19860429
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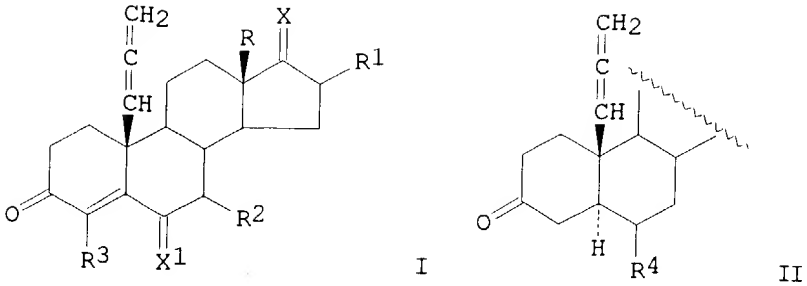

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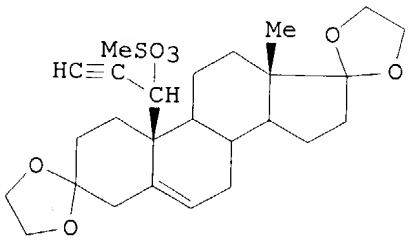

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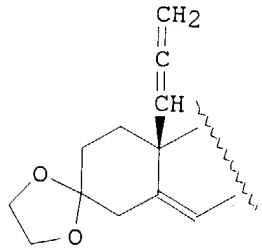

IV

AB Propadienylestrenones I and II [R = Me, Et; R1, R2, R4 = H, C1-3 alkyl; R3 = H, acyloxy; X = O, H, acyloxy; X1 = H2, O, H, alkyl] and their unsatd. derivs. were prepd. as aromatase inhibitors. Thus, the ethynylandrostenal mesylate III was treated with NaAl(OCH2CH2OMe)2H2 in PhMe at -20.degree. for 12 h to give the allene IV, which underwent acid-catalyzed ketal hydrolysis to give 10-(**1,2-propadienyl**)estr-4-ene-3,17-dione (V). Dehydrogenation of V gave 10-(**1,2-propadienyl**)estra-1,4-diene-3,17-dione, 10-(**1,2-propadienyl**)estra-4,6-diene-3,17-dione, and 10-(**1,2-propadienyl**)estra-1,4,6-triene-3,17-dione. V is irreversibly bound to aromatase with an affinity for the enzyme site 3 times greater than that of testosterone.

ST propadienylestrenedione prepn aromatase inhibition; allene estrenedione aromatase inhibitor

IT 19-Norsteroids
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, of propadienyl derivs.)

IT 9039-48-9
RL: PROC (Process)
(inhibition of, by propadienylesterenones)

IT 80951-42-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(mesylation of)

IT 80899-59-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acetylation of)

IT 77832-38-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and aromatase inhibiting activity of)

IT 80899-66-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(prepn. and dehydration of)
IT 80899-63-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and dehydrogenation of)
IT 80899-57-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and elimination reaction of)
IT 80899-58-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)
IT 80899-59-8P 80899-60-1P 80899-61-2P 80899-62-3P 80899-64-5P
80899-65-6P 80899-67-8P **80899-68-9P** 80899-69-0P
80899-70-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

=> d his

(FILE 'HOME' ENTERED AT 13:43:39 ON 13 DEC 2003)

FILE 'REGISTRY' ENTERED AT 13:44:13 ON 13 DEC 2003
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 912 S L1 FULL

FILE 'CAPLUS' ENTERED AT 13:46:00 ON 13 DEC 2003
L4 264 S L3
L5 1 S L4 AND 1,2-PROPADIENYL

=> s l4 and isopropenyl
6862 ISOPROPENYL
L6 1 L4 AND ISOPROPENYL

=> d l6 all

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:733601 CAPLUS
DN 133:281951
ED Entered STN: 17 Oct 2000
TI synthesis and activity of orally active androgens
IN Van der Louw, Jaap; Leysen, Dirk; Buma Bursi, Roberta
PA Akzo Nobel N. V., Neth.
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07J001-00
CC 32-3 (Steroids)
Section cross-reference(s): 2
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 2000059920	A2	20001012	WO 2000-EP2851	20000331
	WO 2000059920	A3	20010215		
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
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	EP 1212345	B1	20030806		
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	AT 246703	E	20030815	AT 2000-936686	20000331
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OS	MARPAT 133:281951				

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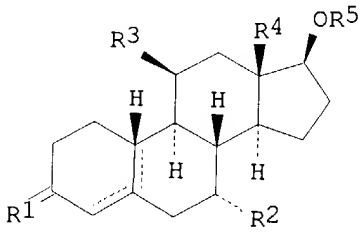

I

AB Novel, orally active androgens (I) [R1 = O, (H, H), (H, OR), NOR, with R = H, alkyl, or acyl; R2 = alkyl, CHMe2, alkenyl, **isopropenyl**, propadienyl, or alkynyl, each optionally substituted by halogen; or R2 = cyclopropyl, or cyclopropenyl, each optionally substituted by alkyl, or halogen; R3 = H, alkyl, or ethenyl; R4 = alkyl; R5 = H, or acyl; and the dotted lines indicate optional bonds] are derivs. of 7.alpha.-methyl-19-nortestosterone. Thus, I (R1 = O, R2 = Et, R3 = H, R4 = Me, R5 = H, bond 4 5 double, bond 5 10 single) (II) is prepd. by copper catalyzed alkylation of (17.beta.)-17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]estra-4,6-dien-3-one followed by trimethylsilylation of keto and desilylation with hydrochloric acid. II shows an ED50 of 2.5 mg/kg in assay to suppress serum LH.

ST nortestosterone methyl analog prepn; orally active androgen insufficiency treatment; male contraceptive kit progestogen oral

IT Progestogens
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(for male contraceptive kit; synthesis and activity of orally active androgens)

IT Androgens
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(insufficiency treatment; synthesis and activity of orally active androgens)

IT Contraceptives
(male, kit of progestagen; synthesis and activity of orally active androgens)

IT 32297-29-3P **293303-47-6P 300542-15-8P**
300542-16-9P 300542-17-0P 300542-18-1P
300542-19-2P 300542-20-5P 300542-21-6P
300542-22-7P 300542-23-8P 300542-24-9P
300542-25-0P 300542-26-1P 300542-27-2P
300542-28-3P 300542-29-4P 300542-30-7P
300542-31-8P **300542-32-9P 300542-33-0P** 300542-34-1P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

IT **300542-83-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

IT 62-23-7, 4-Nitrobenzoic acid 74-96-4, Bromoethane 105-53-3, Diethyl malonate 540-63-6, 1,2-Ethanedithiol 1530-32-1, Ethyltriphenylphosphonium bromide 2590-41-2 3536-96-7, Vinylmagnesium chloride 5293-84-5, (Chloromethyl)triphenylphosphonium chloride 13154-15-9 21800-83-9 56896-41-4 116506-60-6 133152-37-1 213890-36-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)

IT 153004-23-0P **213889-77-1P 293303-46-5P** 300542-35-2P
300542-36-3P 300542-37-4P 300542-38-5P 300542-39-6P
300542-40-9P 300542-41-0P 300542-42-1P 300542-43-2P
300542-44-3P 300542-45-4P **300542-46-5P 300542-47-6P**
300542-48-7P 300542-49-8P **300542-50-1P 300542-51-2P**
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300542-61-4P 300542-62-5P 300542-63-6P 300542-64-7P 300542-65-8P
300542-66-9P 300542-67-0P 300542-68-1P 300542-69-2P 300542-70-5P
300542-71-6P 300542-72-7P 300542-73-8P 300542-74-9P 300542-75-0P
300542-76-1P 300542-77-2P 300542-78-3P **300542-79-4P**
300542-80-7P 300542-81-8P 300542-82-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)

=> s l4 and isopropyl

```
         68087 ISOPROPYL
L7           0 L4 AND ISOPROPYL

=> s l4 and acyl
         94187 ACYL
L8          20 L4 AND ACYL

=> d l8 ibib abs hitstr 1-20
```

L8 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:511349 CAPLUS
DOCUMENT NUMBER: 139:69427
TITLE: Preparation of androgenic 14.alpha.,17.alpha.-ethenosteroids
INVENTOR(S): Leysen, Dirk; Cals, Joseph Maria Gerardus Barbara
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 9 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003053993	A1	20030703	WO 2002-EP14282	20021216

W: AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, RO, RU, SG, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2001-205154 A 20011221
OTHER SOURCE(S): MARPAT 139:69427
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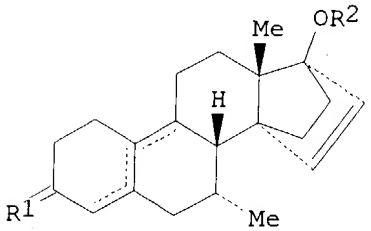

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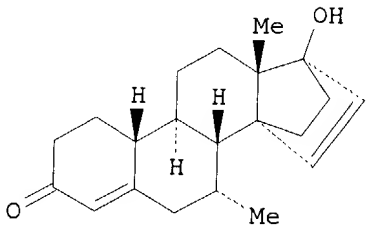
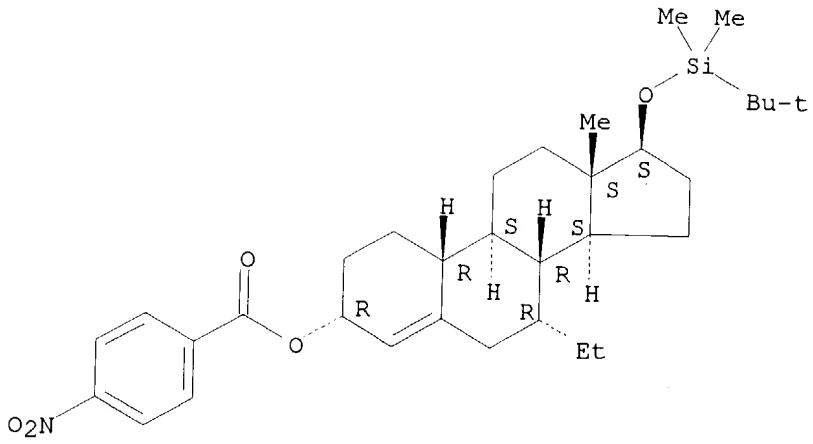


II

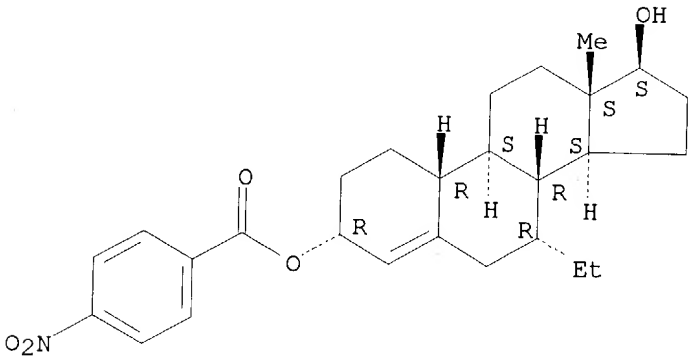
AB Ethenosteroids of formula I [R1 = O, H2, OH, NOH wherein OH is optionally etherified or esterified; R2 = H, **acyl**] are prepd. for use as androgenic medicines. Thus, II was prepd. and had 60.5% androgenic activity in Chinese hamster ovary cells transfected with human androgen receptor.

IT **551960-35-1P**



RN 300542-82-9 CAPLUS
CN Estr-4-ene-3,17-diol, 7-ethyl-, 3-(4-nitrobenzoate), (3.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:646025 CAPLUS
DOCUMENT NUMBER: 133:238171
TITLE: preparation of 14.beta.,17.alpha.-hydroxymethylandrostane derivatives as androgens
INVENTOR(S): Loozen, Hubert Jan Jozef; Leysen, Dirk; Van der Louw, Jaap
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2000053619	A1	20000914	WO 2000-EP1755	20000302
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2359218	AA	20000914	CA 2000-2359218	20000302
EP 1163259	A1	20011219	EP 2000-909281	20000302
EP 1163259	B1	20021120		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539135	T2	20021119	JP 2000-604054	20000302
AT 228143	E	20021215	AT 2000-909281	20000302

PRIORITY APPLN. INFO.: EP 1999-200665 A 19990308
WO 2000-EP1755 W 20000302

OTHER SOURCE(S): MARPAT 133:238171
GI

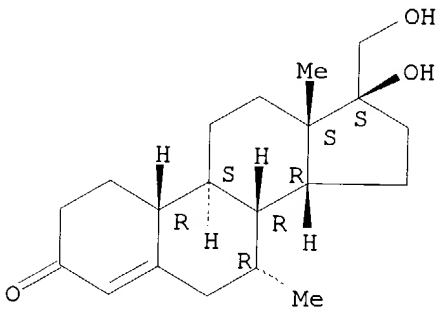
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. I wherein R1 = O, (H,H), (H, OR), NOR, R = H, (C1-6) alkyl, (C1-6) **acyl**; R2 = H, (C1-6) alkyl, or halo; R3 = H, (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl; R4 = H, halo, or cyano; or R4 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl; R5 = H, or (C1-6) alkyl; R6 = H, (C1-6) alkoxy, or halo; or R6 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C2-6) alkynyl, a (C1-6) alkylidene group, or a (C2-6) alkylidene group; R7 = H, or (C1-6) alkyl; R8 = (C1-6) alkyl; R9 = H, halo cyano; or R9 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, or (C2-6) alkynyl; R10 = H, (C1-6) alkoxy, halo, or cyano; or R10 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl or (C2-6) alkynyl; R10 R11 may form a cyclopropane ring; R11 = H, (C1-6) alkoxy, halo, cyano; or R11 = (un)substituted (C2-6) alkenyl or (C2-6) alkynyl, R11 R10 may form a cyclopropane ring; R12 = H, OH, halo, or cyano; or R12 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl or (C2-6) alkynyl; R13, R14 = H, cyano, (un)substituted Ph; or R13, R14 = (un)substituted (C1-6) alkyl, (C2-6) alkenyl, (C3-6) cycloalkyl, (C5-6)cycloalkenyl, (C2-6) alkynyl; R13 R14 may form a (C3-6) cycloalkane ring or a (C5-6) cycloalkene ring; R15 = H, SO3H, (C1-6) alkyl, (C1-15) **acyl**; and the dotted lines indicate optional bonds were prepd. I is not 20-hydroxy-14.beta.,17.alpha.-19-norpregn-4-en-3-one, (3.beta.,5.alpha.,14.beta.,17.alpha.)-pregna-3,20-diol, (3.beta.,14.beta.,17.alpha.)-pregna-5,9(11)-dien-3,20-diol, and (14.beta.,17.alpha.)-20-hydroxy-19-norpregn-4-en-3-one. Thus, a soln. of (14.beta.,17.alpha.)-3-methoxyestra-2,5(10)-diene-17-methanol (II) in a mixt. of methanol and THF was treated with a soln. of oxalic acid in water, after 1.5 h stirring at room temp., the reaction mixt. was poured into water and the product was extd. with Et acetate, the combined org. phase were washed with satd. aq. soln. of sodium bicarbonate and brine, dried over sodium sulfate and concd. under reduced pressure, column chromatog. afforded (14.beta.,17.alpha.)-17-(hydroxymethyl)estr-5(10)-en-3-

one (III). I were screened for androgenic activity. They can be used for the prepn. of an agent for male contraception, as well as for the prepn. of a medicament for the treatment of androgen insufficiency.

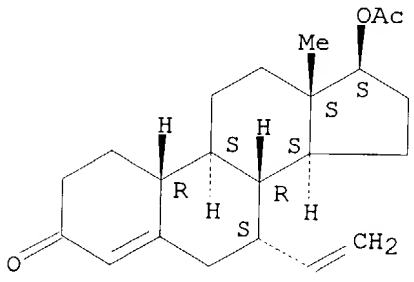
IT **293303-45-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 14.beta., 17.alpha.-hydroxymethylandrostane derivs. as androgens)
RN 293303-45-4 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-17-(hydroxymethyl)-7-methyl-, (7.alpha.,14.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



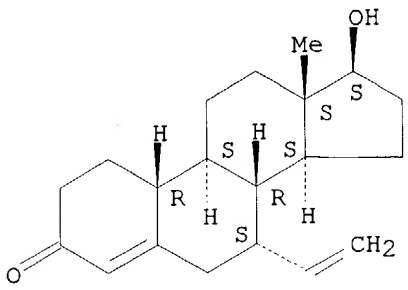
IT **293303-46-5P 293303-47-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 14.beta., 17.alpha.-hydroxymethylandrostane derivs. as androgens)
RN 293303-46-5 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 293303-47-6 CAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

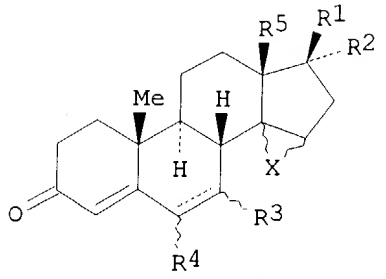
L8 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:811541 CAPLUS
DOCUMENT NUMBER: 132:50159
TITLE: Preparation and pharmaceutical compositions. of 14,15-cyclopropanoandrostanes
INVENTOR(S): Ring, Sven; Schwarz, Sigfrid; Elger, Walter; Schneider, Birgitt; Kaufmann, Guenter; Sobek, Lothar
PATENT ASSIGNEE(S): Jenapharm G.m.b.H. und Co. K.-G., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19827523	A1	19991223	DE 1998-19827523	19980622
WO 9967275	A1	19991229	WO 1999-DE1794	19990618
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9952787	A1	20000110	AU 1999-52787	19990618
EP 1090028	A1	20010411	EP 1999-938195	19990618
EP 1090028	B1	20020123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 212352	E	20020215	AT 1999-938195	19990618
JP 2002518517	T2	20020625	JP 2000-555926	19990618
PT 1090028	T	20020731	PT 1999-99938195	19990618
ES 2172343	T3	20020916	ES 1999-938195	19990618
US 6534490	B1	20030318	US 2000-720135	20001221

PRIORITY APPLN. INFO.: DE 1998-19827523 A 19980622

WO 1999-DE1794 W 19990618

OTHER SOURCE(S): MARPAT 132:50159
GI



I

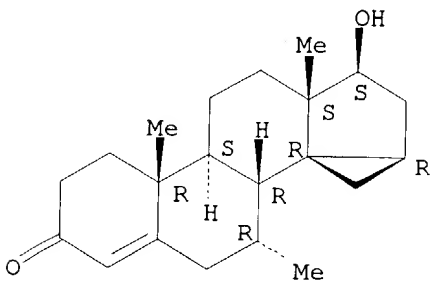
AB The title compds. I (R1 = H, OH, alkoxy, aryloxy, carbamoyl, alkoxycarbonyl, etc.; R2 = H, HO, alkyl, **acyl**, aryl, aralkyl, etc.; R3, R4 = H, .alpha.- or .beta.-alkyl; R5 = alkyl) were prepd. for hormone therapy (no data). Pharmaceutical compns. were discussed (no data). Thus, 17.beta.-acetoxy-3,5-cyclo-6.beta.-methoxy-14.beta.,15.beta.-methyleneandrostane was oxidized with perchloric acid to give 17.beta.-hydroxy-14.beta.,15.beta.-methyleneandrost-4-en-3-one, which underwent dehydrogenation followed by methylation with MeMgI to give 17.beta.-hydroxy-7.alpha.-methyl-14.beta.,15.beta.-methyleneandrost-4-en-3-one.

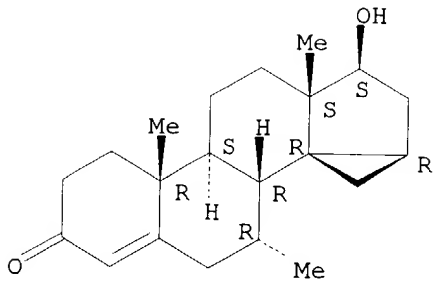
IT **252846-62-1P 252846-75-6P 252846-76-7P**
252846-77-8P 252846-85-8P 252846-86-9P
252846-87-0P 252846-88-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and pharmaceutical compns. of 14,15-cyclopropanoandrostanes)

RN 252846-62-1 CAPLUS

CN Cycloprop[14,15]androst-4-en-3-one, 3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

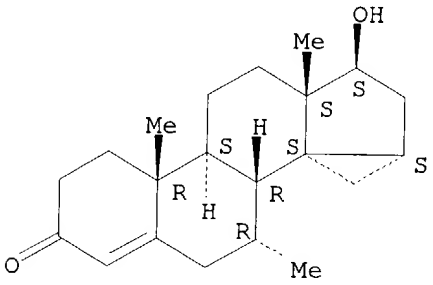
Absolute stereochemistry.





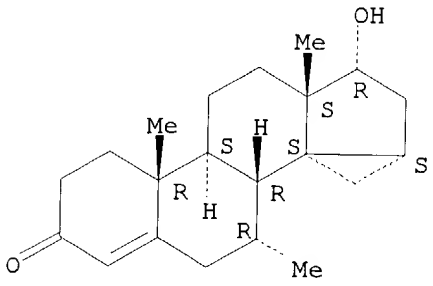
RN 252846-75-6 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one, 3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14S,15.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



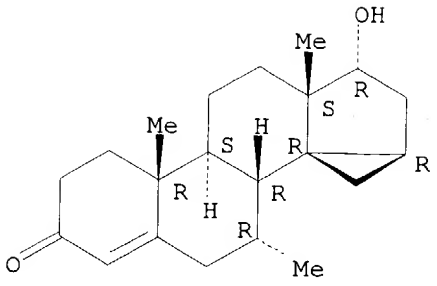
RN 252846-76-7 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one, 3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14S,15.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



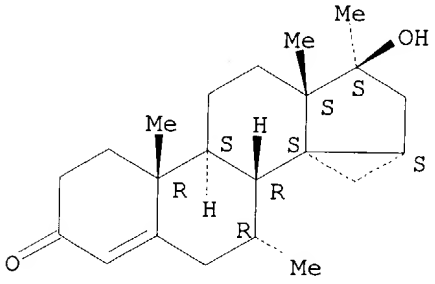
RN 252846-77-8 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one, 3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14R,15.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



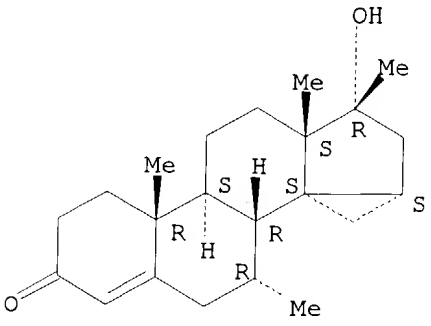
RN 252846-85-8 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one,
3',15-dihydro-17-hydroxy-7,17-dimethyl-
, (7.alpha.,14S,15.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

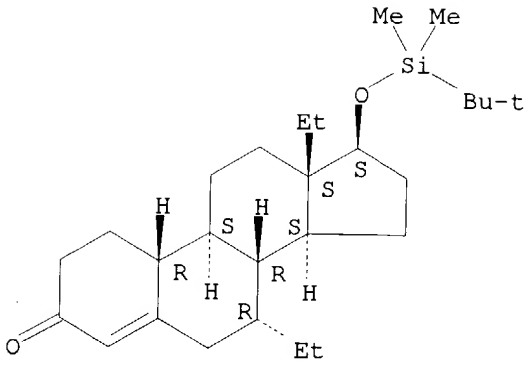


RN 252846-86-9 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one,
3',15-dihydro-17-hydroxy-7,17-dimethyl-
, (7.alpha.,14S,15.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 252846-87-0 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one,
3',15-dihydro-17-hydroxy-7,17-dimethyl-
, (7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

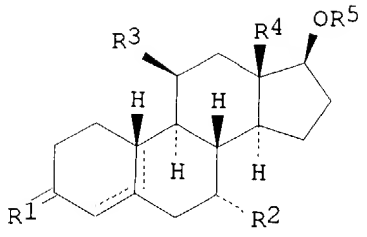
FORMAT

L8 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:733601 CAPLUS
DOCUMENT NUMBER: 133:281951
TITLE: synthesis and activity of orally active androgens
INVENTOR(S): Van der Louw, Jaap; Leysen, Dirk; Buma Bursi, Roberta
PATENT ASSIGNEE(S): Akzo Nobel N. V., Neth.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059920	A2	20001012	WO 2000-EP2851	20000331
WO 2000059920	A3	20010215		
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1043330	A1	20001011	EP 1999-201070	19990406
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1212345	A2	20020612	EP 2000-936686	20000331
EP 1212345	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2002541153	T2	20021203	JP 2000-609430	20000331
AT 246703	E	20030815	AT 2000-936686	20000331

PRIORITY APPLN. INFO.: EP 1999-201070 A 19990406
WO 2000-EP2851 W 20000331

OTHER SOURCE(S): MARPAT 133:281951
GI



I

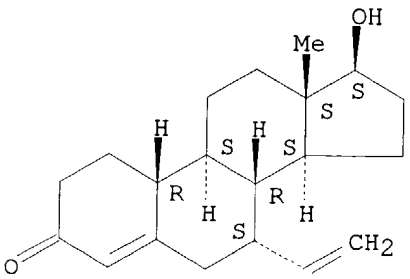
AB Novel, orally active androgens (I) [R1 = O, (H, H), (H, OR), NOR, with R = H, alkyl, or **acyl**; R2 = alkyl, CHMe2, alkenyl, isopropenyl, propadienyl, or alkynyl, each optionally substituted by halogen; or R2 = cyclopropyl, or cyclopropenyl, each optionally substituted by alkyl, or halogen; R3 = H, alkyl, or ethenyl; R4 = alkyl; R5 = H, or **acyl**; and the dotted lines indicate optional bonds] are derivs. of 7.alpha.-methyl-19-nortestosterone. Thus, I (R1 = O, R2 = Et, R3 = H, R4 = Me, R5 = H, bond 4 5 double, bond 5 10 single) (II) is prepd. by copper catalyzed alkylation of (17.beta.)-17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]estra-4,6-dien-3-one followed by trimethylsilylation of keto and desilylation with hydrochloric acid. II shows an ED50 of 2.5 mg/kg in assay to suppress serum LH.

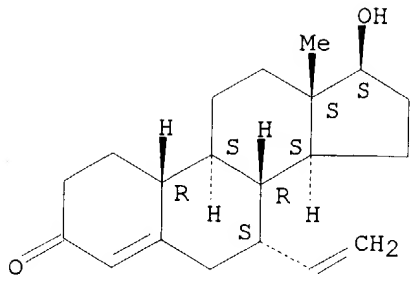
IT **293303-47-6P 300542-15-8P 300542-16-9P**
300542-17-0P 300542-18-1P 300542-19-2P
300542-20-5P 300542-22-7P 300542-23-8P
300542-24-9P 300542-25-0P 300542-26-1P
300542-27-2P 300542-28-3P 300542-29-4P
300542-30-7P 300542-32-9P 300542-33-0P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and activity of orally active androgens)

RN 293303-47-6 CAPLUS

CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

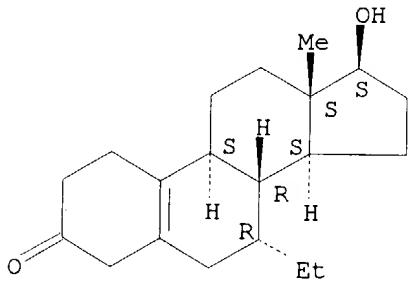
Absolute stereochemistry.





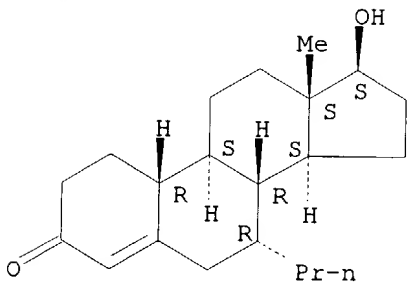
RN 300542-15-8 CAPLUS
CN Estr-5(10)-en-3-one, 7-ethyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



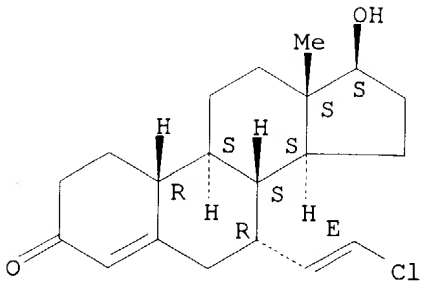
RN 300542-16-9 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-propyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



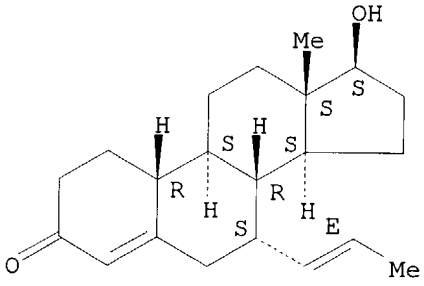
RN 300542-17-0 CAPLUS
CN Estr-4-en-3-one, 7-[(1E)-2-chloroethenyl]-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



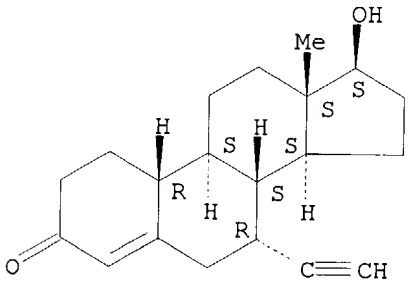
RN 300542-18-1 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1E)-1-propenyl-, (7.alpha.,17.beta.)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



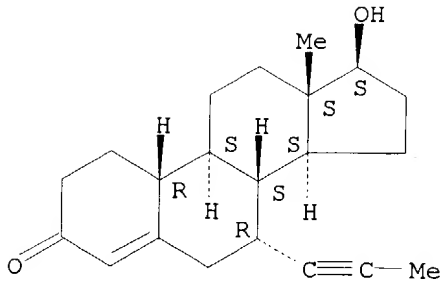
RN 300542-19-2 CAPLUS
CN Estr-4-en-3-one, 7-ethynyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



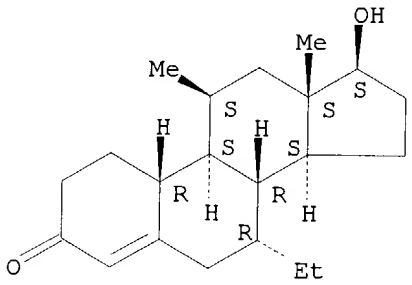
RN 300542-20-5 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propynyl)-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



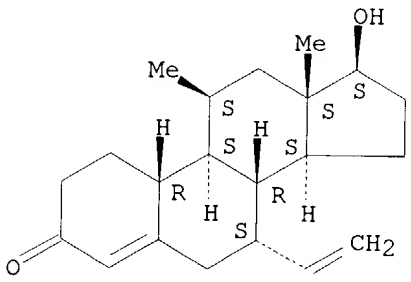
RN 300542-22-7 CAPLUS
CN Estr-4-en-3-one, 7-ethyl-17-hydroxy-11-methyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



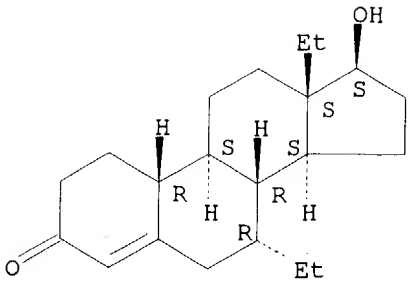
RN 300542-23-8 CAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-11-methyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



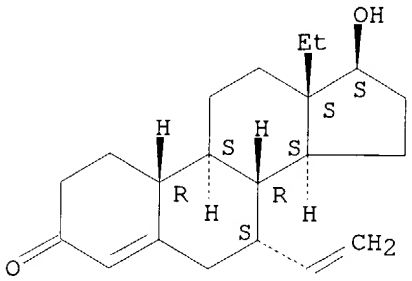
RN 300542-24-9 CAPLUS
CN Gon-4-en-3-one, 7,13-diethyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



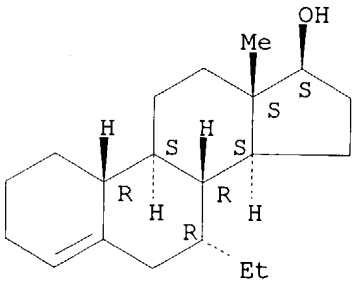
RN 300542-25-0 CAPLUS
CN Gon-4-en-3-one, 7-ethenyl-13-ethyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



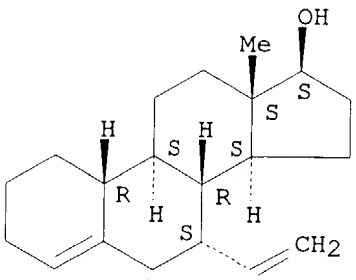
RN 300542-26-1 CAPLUS
CN Estr-4-en-17-ol, 7-ethyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



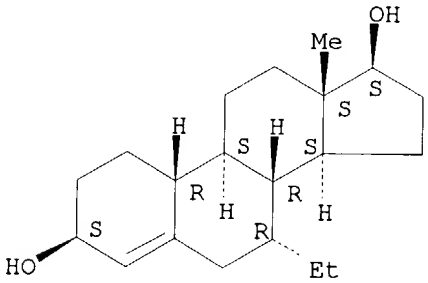
RN 300542-27-2 CAPLUS
CN Estr-4-en-17-ol, 7-ethenyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



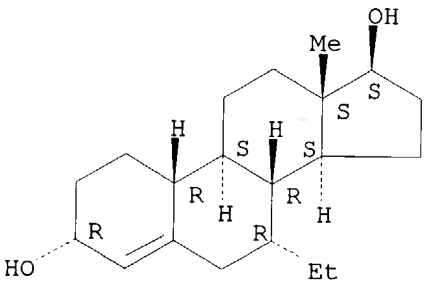
RN 300542-28-3 CAPLUS
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



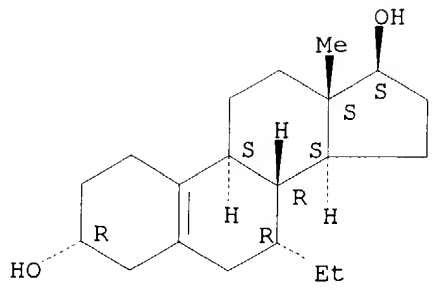
RN 300542-29-4 CAPLUS
CN Estr-4-ene-3,17-diol, 7-ethyl-, (3.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



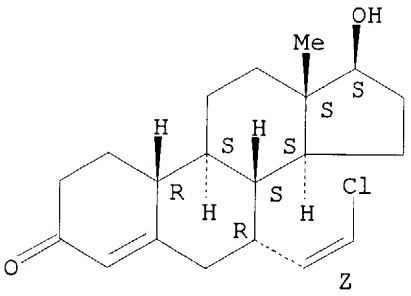
RN 300542-30-7 CAPLUS
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



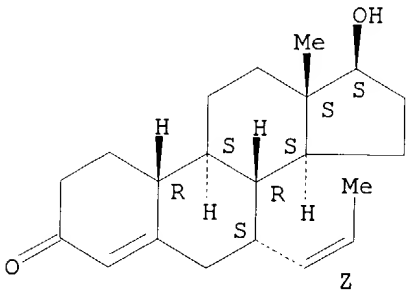
RN 300542-32-9 CAPLUS
CN Estr-4-en-3-one, 7-[(1Z)-2-chloroethenyl]-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 300542-33-0 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1Z)-1-propenyl-, (7.alpha.,17.beta.)-(9CI)
(CA INDEX NAME)

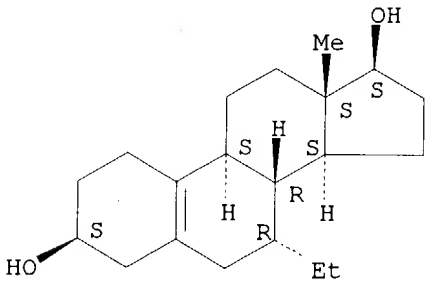
Absolute stereochemistry.
Double bond geometry as shown.



IT **300542-83-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

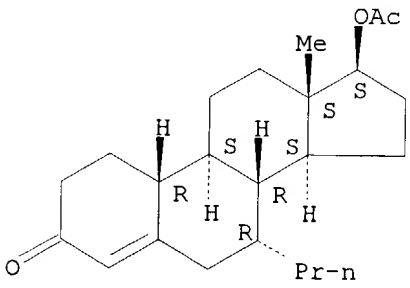
(synthesis and activity of orally active androgens)
RN 300542-83-0 CAPLUS
CN Estr-5(10)-ene-3,17-diol, 7-ethyl-, (3.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



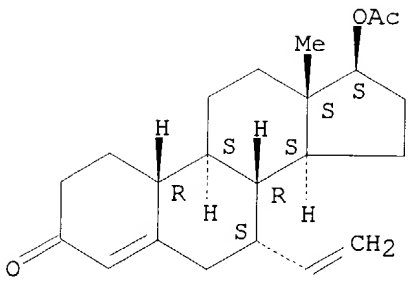
IT **213889-77-1P 293303-46-5P 300542-36-3P**
300542-40-9P 300542-46-5P 300542-47-6P
300542-50-1P 300542-51-2P 300542-59-0P
300542-79-4P 300542-80-7P 300542-81-8P
300542-82-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and activity of orally active androgens)
RN 213889-77-1 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-propyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



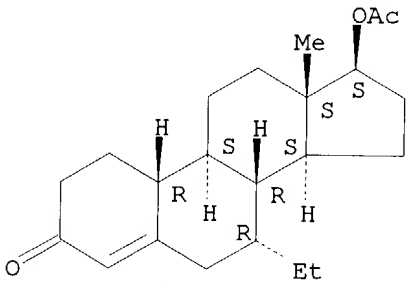
RN 293303-46-5 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



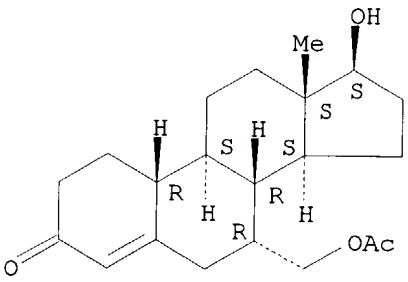
RN 300542-36-3 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



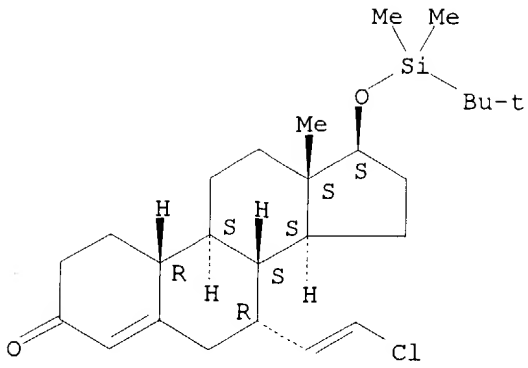
RN 300542-40-9 CAPLUS
CN Estr-4-en-3-one, 7-[(acetyloxy)methyl]-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



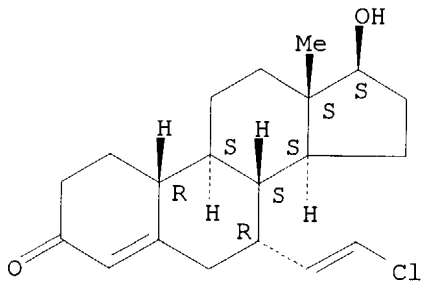
RN 300542-46-5 CAPLUS
CN Estr-4-en-3-one, 7-(2-chloroethenyl)-17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



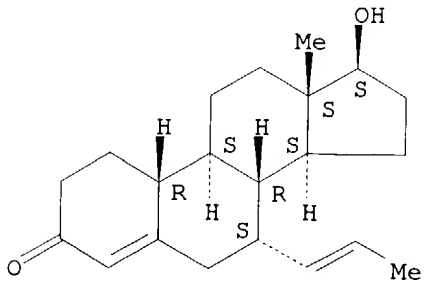
RN 300542-47-6 CAPLUS
CN Estr-4-en-3-one, 7-(2-chloroethenyl)-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 300542-50-1 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-(1-propenyl)-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

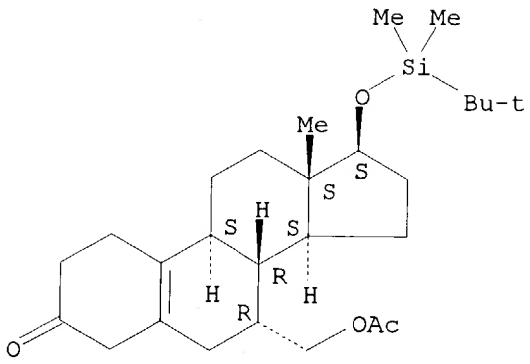
Absolute stereochemistry.
Double bond geometry unknown.



RN 300542-51-2 CAPLUS
CN Estr-5(10)-en-3-one, 7-[(acetyloxy)methyl]-17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX

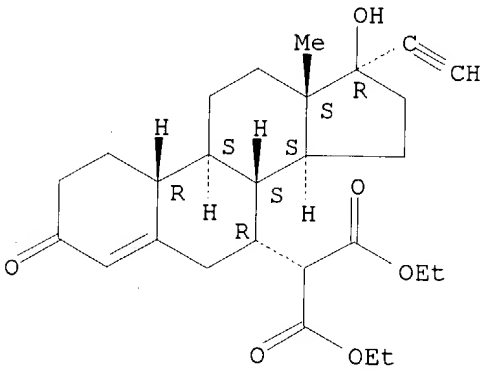
NAME)

Absolute stereochemistry.



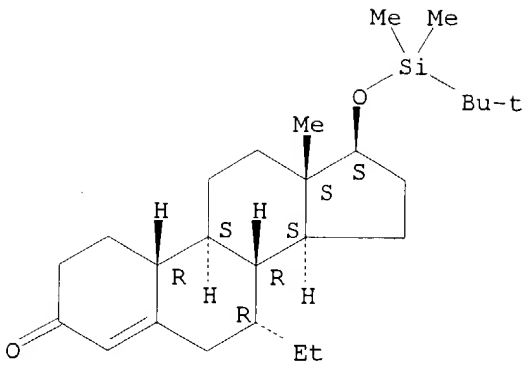
RN 300542-59-0 CAPLUS
CN Propanedioic acid,
[(7.alpha.,17.alpha.)-17-hydroxy-3-oxo-19-norpregn-4-en-20-yn-7-yl]-, diethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



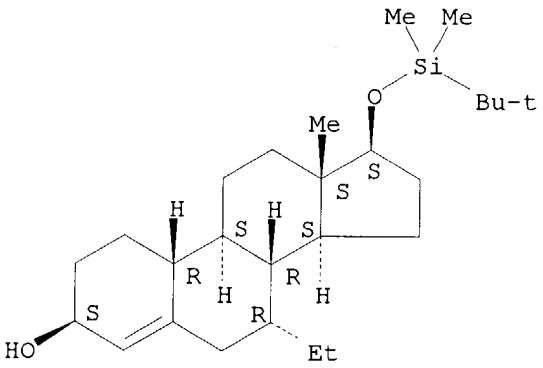
RN 300542-79-4 CAPLUS
CN Estr-4-en-3-one, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-ethyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 300542-80-7 CAPLUS
CN Estr-4-en-3-ol, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-ethyl-, (3.beta.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

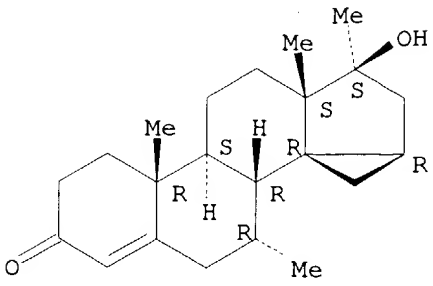
Absolute stereochemistry.



RN 300542-81-8 CAPLUS
CN Estr-4-en-3-ol, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-ethyl-, 4-nitrobenzoate, (3.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

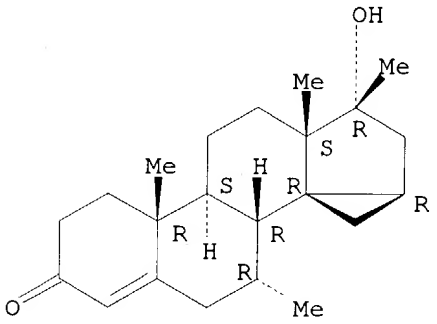
Absolute stereochemistry.

Absolute stereochemistry.



RN 252846-88-1 CAPLUS
CN Cycloprop[14,15]androst-4-en-3-one,
3',15-dihydro-17-hydroxy-7,17-dimethyl-
, (7.alpha.,14R,15.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:355788 CAPLUS
DOCUMENT NUMBER: 131:19186
TITLE: synthesis and androgenic activity of steroid compounds
INVENTOR(S): Cook, Edgar C.; Kepler, John A.; Lee, Yue-Wei; Wani, Mansukh C.
PATENT ASSIGNEE(S): Research Triangle Institute, USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9926962	A1	19990603	WO 1998-US24527	19981123

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,

MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

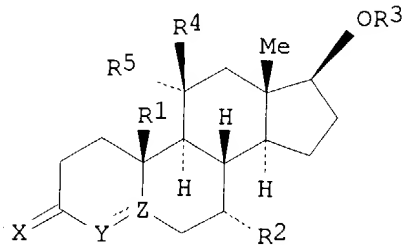
US 5952319	A	19990914	US 1997-979369	19971126	
CA 2311448	AA	19990603	CA 1998-2311448	19981123	
AU 9915891	A1	19990615	AU 1999-15891	19981123	
AU 750663	B2	20020725			
EP 1042352	A1	20001011	EP 1998-960246	19981123	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001524487	T2	20011204	JP 2000-522119	19981123	
US 2002002156	A1	20020103	US 1999-328436	19990609	
US 6369047	B2	20020409			
NO 2000002676	A	20000525	NO 2000-2676	20000525	
US 2002103177	A1	20020801	US 2002-51172	20020122	

PRIORITY APPLN. INFO.:

US 1997-979369	A	19971126
WO 1998-US24527	W	19981123
US 1999-328436	A1	19990609

OTHER SOURCE(S): CASREACT 131:19186

GI



I

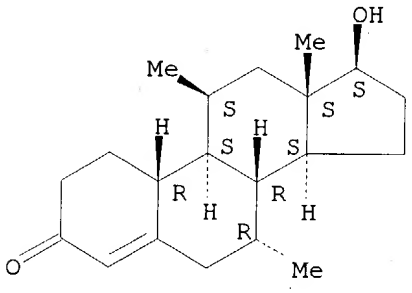
AB A process for the synthesis of androgenic steroid compd. of formula (I) [R1 = H, alkyl; R2 = .alpha. (un)substituted alkyl; R3 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted cycloalkyl, (un)substituted aryl, (un)substituted hetereocycle, H, (un)substituted **acyl**; R5 = H and R4 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl or R5R4 = =CH2; X = O, 2H, OH, O-**acyl**; Y-Z = CH=C or CH2-CH where H is .alpha. or Y = S, O, (un)substituted NH]is presented. Thus, I (X = O, Y-Z = CH2-CH, R2,R4 = Me, R3 = H) (II) is prepd. in 13 steps from com. available androsterone by conversion to the 4,6-dientrione, conjugate methylation, conversion to 1,4-dientrione, std. ketalization, redn.to 11.beta.-alc., ring A aromatization, methylation, oxidn. to 11-ketone, conversion to 11-methylene compd., catalytic hydrogenation to 11.beta.-Me compd., redn. to 17-alc. followed by Birch redn. and acid hydrolysis of the dienol ether to II. I show marked androgenic activity and are useful in hormone treatment of a mammal for either human or animal.

IT **226066-52-0P 226066-53-1P 226066-55-3P**
226066-56-4P 226066-57-5P 226066-58-6P
226066-59-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and androgenic activity of steroid compds.)

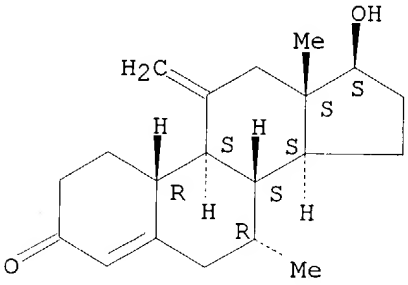
RN 226066-52-0 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7,11-dimethyl-, (7.alpha.,11.beta.,17.beta.)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



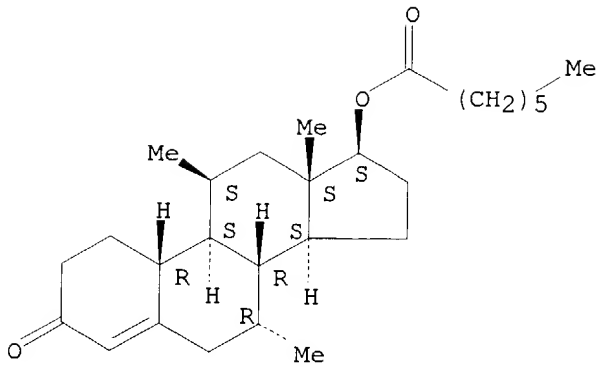
RN 226066-53-1 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-methyl-11-methylene-, (7.alpha.,17.beta.)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



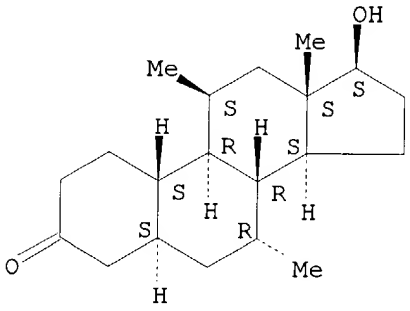
RN 226066-55-3 CAPLUS
CN Estr-4-en-3-one, 7,11-dimethyl-17-[(1-oxoheptyl)oxy]-,
(7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



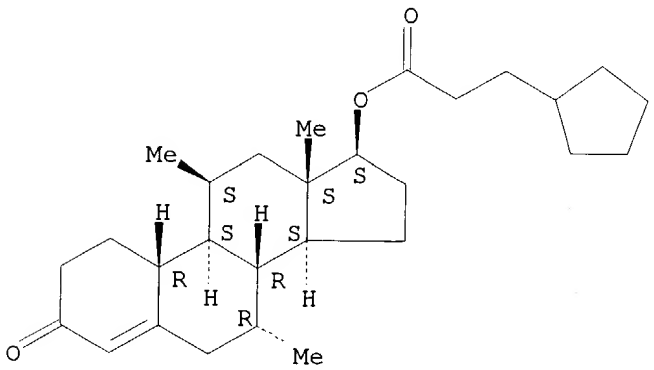
RN 226066-56-4 CAPLUS
CN Estran-3-one, 17-hydroxy-7,11-dimethyl-, (5.alpha.,7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



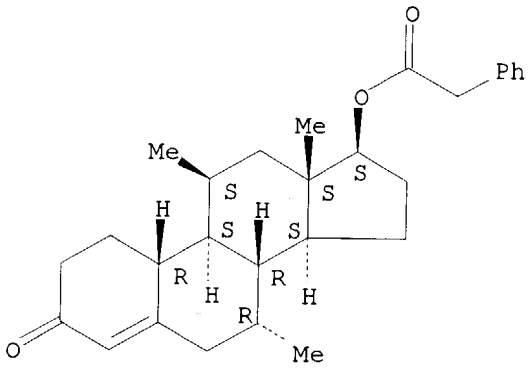
RN 226066-57-5 CAPLUS
CN Estr-4-en-3-one, 17-(3-cyclopentyl-1-oxopropoxy)-7,11-dimethyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



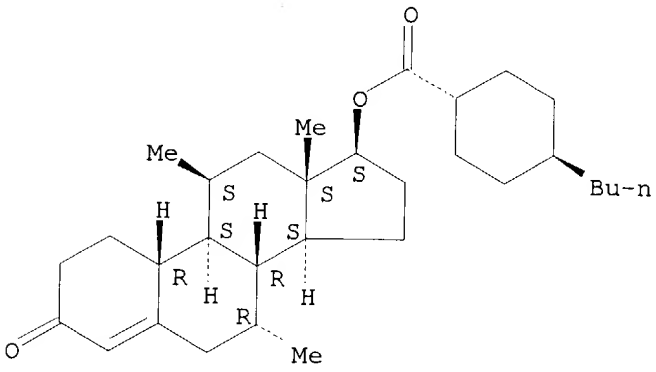
RN 226066-58-6 CAPLUS
CN Estr-4-en-3-one, 7,11-dimethyl-17-[(phenylacetyl)oxy]-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 226066-59-7 CAPLUS
CN Estr-4-en-3-one, 17-[[(trans-4-butylcyclohexyl)carbonyl]oxy]-7,11-dimethyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L8 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:405970 CAPLUS
DOCUMENT NUMBER: 129:81885
TITLE: Processes for preparation of 9,11-epoxy steroids and their intermediates
INVENTOR(S): Ng, John S.; Liu, Chin; Anderson, Dennis K.; Lawson, Jon P.; Wieczorek, Joseph; Kunda, Sastry A.; Letendre, Leo J.; Pozzo, Mark J.; Sing, Yuen-lung L.; Wang, Ping

T.; Yonan, Edward E.; Weier, Richard M.; Kowar, Thomas
R.; Baez, Julio A.; Erb, Bernhard

PATENT ASSIGNEE(S): G.D. Searle & Co., USA; Ng, John S.; Liu, Chin; Anderson, Dennis K.; Lawson, Jon P.; Wieczorek, Joseph; Kunda, Sastry A.; Letendre, Leo J.; Pozzo, Mark J.; et al.

SOURCE: PCT Int. Appl., 543 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9825948	A2	19980618	WO 1997-US23090	19971211
WO 9825948	A3	19981015		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9711038	A	19990125	ZA 1997-11038	19971209
AU 9857983	A1	19980703	AU 1998-57983	19971211
AU 733559	B2	20010517		
EP 944644	A2	19990929	EP 1997-954126	19971211
EP 944644	B1	20021002		
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CN 1253564	A	20000517	CN 1997-181737	19971211
BR 9714510	A	20001128	BR 1997-14510	19971211
NZ 336004	A	20010427	NZ 1997-336004	19971211
JP 2001509792	T2	20010724	JP 1998-527032	19971211
EP 1148061	A2	20011024	EP 2001-111209	19971211
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EP 1223174	A2	20020717	EP 2002-7309	19971211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
AT 225367	E	20021015	AT 1997-954126	19971211
NZ 510556	A	20021025	NZ 1997-510556	19971211
ES 2186017	T3	20030501	ES 1997-954126	19971211
ZA 9805088	A	19990611	ZA 1998-5088	19980611
NO 9902825	A	19990729	NO 1999-2825	19990610
AU 747959	B2	20020530	AU 2000-18440	20000221
US 2002038021	A1	20020328	US 2000-732208	20001207
US 2002045746	A1	20020418	US 2000-732209	20001207
US 2003055274	A1	20030320	US 2002-112355	20020329
US 6610844	B2	20030826		

PRIORITY APPLN. INFO.:			
US 1996-33315P	P	19961211	
US 1997-49388P	P	19970611	
US 1995-8455P	P	19951211	

US 1996-763910	A3	19961211
EP 1997-954126	A3	19971211
NZ 1997-336004	A1	19971211
WO 1997-US23090	W	19971211
US 1999-246204	A2	19990208
US 1999-246908	A3	19990209
US 1999-169556P	P	19991208
US 1999-169608P	P	19991208
US 1999-169639P	P	19991208
US 1999-169682P	P	19991208
US 1999-169683P	P	19991208
US 1999-169690P	P	19991208
US 1999-169707P	P	19991208
US 1999-169807P	P	19991208
US 1999-319673	A2	19991213
US 2000-583137	A2	20000530
US 2000-583158	A2	20000530

OTHER SOURCE(S): CASREACT 129:81885; MARPAT 129:81885

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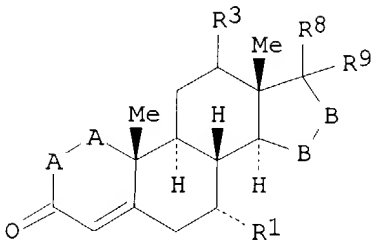
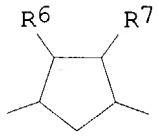


I



II

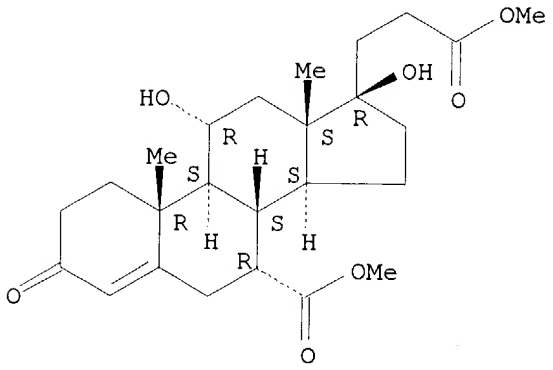
AB Multiple novel reaction schemes, novel process steps and novel intermediates are provided for the synthesis of epoxymexrenone and other compds. of formula (I) wherein: -A-A- represents the group -CHR4-CHR5- or -CR4=CR5-, R3, R4 and R5 are independently selected from the group consisting of hydrogen, halo, hydroxy, lower alkyl, lower alkoxy, hydroxyalkyl, alkoxyalkyl, hydroxycarbonyl, cyano, aryloxy; R1 represents an alpha-oriented lower alkoxycarbonyl or hydroxyalkyl radical; -B-B- represents the group -CHR6-CHR7- or an alpha- or beta-oriented group (II),
where R6 and R7 are independently selected from the group consisting of hydrogen, halo, lower alkoxy, **acyl**, hydroxyalkyl, alkoxyalkyl, hydroxycarbonyl, alkyl, alkoxycarbonyl, acyloxyalkyl, cyano and aryloxy; and R8 and R9 are independently selected from the group consisting of hydrogen, hydroxy, halo, lower alkoxy, **acyl**, hydroxyalkyl, alkoxyalkyl, hydroxycarbonyl, alkyl, alkoxycarbonyl, acyloxyalkyl, cyano and aryloxy, or R8 and R9 together comprise a carbocyclic or heterocyclic ring structure, or R8 or R9 together with R6 or R7 comprise a carbocyclic or heterocyclic ring structure fused to the pentacyclic D ring.

IT **209253-71-4P 209253-75-8P 209253-76-9P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(processes for prepn. of 9,11-epoxy steroids and their intermediates)

RN 209253-71-4 CAPLUS

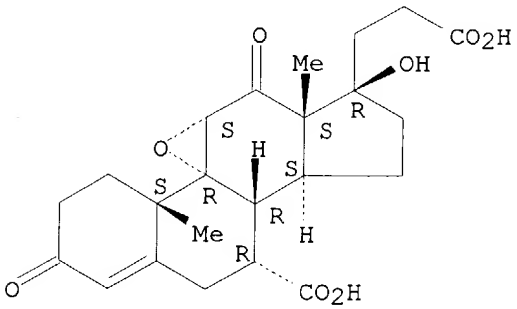
CN Pregn-4-ene-7,21-dicarboxylic acid, 11,17-dihydroxy-3-oxo-, dimethyl ester, (7.alpha.,11.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 209253-75-8 CAPLUS
CN Pregn-4-ene-7,21-dicarboxylic acid, 9,11-epoxy-17-hydroxy-3,12-dioxo-, dipotassium salt, (7.alpha.,11.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

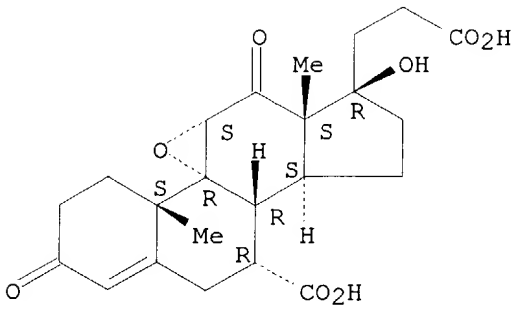
Absolute stereochemistry.



●2 K

RN 209253-76-9 CAPLUS
CN Pregn-4-ene-7,21-dicarboxylic acid, 9,11-epoxy-17-hydroxy-3,12-dioxo-, disodium salt, (7.alpha.,11.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 Na

L8 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:95058 CAPLUS
DOCUMENT NUMBER: 124:146583
TITLE: Process for the preparation of 4-amino-.DELTA.4-3-keto steroids via 4-nitro-.DELTA.4-3-keto steroids
INVENTOR(S): Weintraub, Philip M.; Gates, Cynthia A.; Angelastro, Michael R.; Curran, Timothy T.; Flynn, Gary A.; King, Chi-Hsin R.
PATENT ASSIGNEE(S): Merrell Dow Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

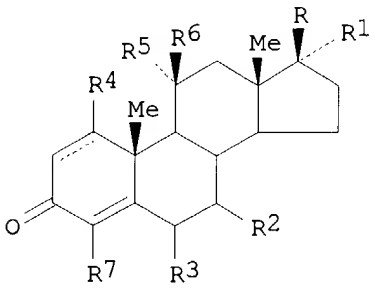
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9529932	A1	19951109	WO 1995-US4399	19950411
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2188760	AA	19951109	CA 1995-2188760	19950411
AU 9522449	A1	19951129	AU 1995-22449	19950411
AU 686793	B2	19980212		
EP 758340	A1	19970219	EP 1995-915628	19950411
EP 758340	B1	19990107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1147258	A	19970409	CN 1995-192882	19950411
CN 1042540	B	19990317		
HU 75523	A2	19970528	HU 1996-3035	19950411
JP 09512547	T2	19971216	JP 1995-528246	19950411

AT 175419	E	19990115	AT 1995-915628	19950411
ES 2128052	T3	19990501	ES 1995-915628	19950411
ZA 9503357	A	19960117	ZA 1995-3357	19950425
IL 113532	A1	20000217	IL 1995-113532	19950428
FI 9604410	A	19961101	FI 1996-4410	19961101
NO 9604627	A	19970102	NO 1996-4627	19961101
US 5750744	A	19980512	US 1997-737031	19970211
US 5869475	A	19990209	US 1997-970843	19971114

PRIORITY APPLN. INFO.: US 1994-231433 A2 19940502
US 1995-737031 A3 19950211
WO 1995-US4399 W 19950411

OTHER SOURCE(S): CASREACT 124:146583; MARPAT 124:146583

GI



I

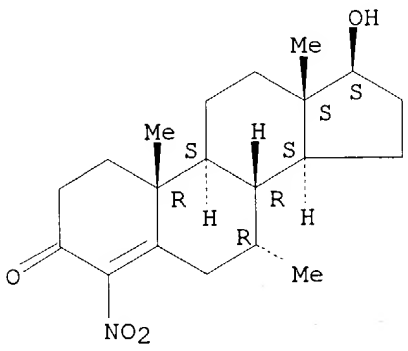
AB The present invention provides 4-nitro-.DELTA.4-3-keto steroids I [R = (un)substituted OH, **acyl**, (un)substituted alkyl, CO2H, carbamoyl, alkylthio; R1 = H, OH, alkyl; R2-R4 = H, alkyl; R5, R6 = H, OH; R7 = NH2], for use as steroid C17-20 lyase and 5.alpha.-reductase inhibitors, were prepd. by treating I [R7 = H] with a strong base to create the thermodn. dienolate, followed by addn. of a neutral nitrating agent to produce I [R7 = NO2] and treating this with a suitable reducing agent. Thus, (20S)-20-hydroxymethylpregn-4-en-3-one was treated with Me3COK, followed by Me2CHONO2 to give the 4-nitro deriv. which was reduced to the amine with Lindlar catalyst. Some of the intermediate nitro compds. showed testicular C17-20 lyase-inhibiting activity.

IT **173285-59-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of nitro and amino keto steroids with steroid reductase and lyase-inhibiting activity)

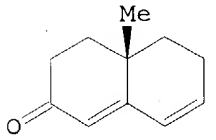
RN 173285-59-1 CAPLUS

CN Androst-4-en-3-one, 17-hydroxy-7-methyl-4-nitro-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

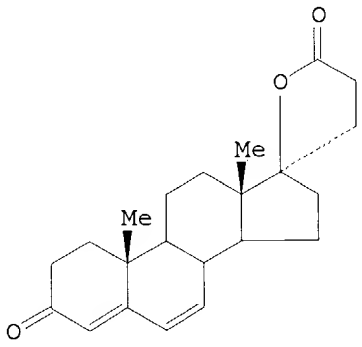
Absolute stereochemistry.



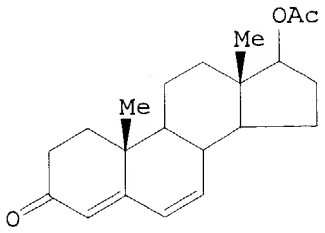
L8 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1987:33370 CAPLUS
DOCUMENT NUMBER: 106:33370
TITLE: Synthesis of 7-**acyl**-10-methyl-3-octahydronaphtalenones and 7-**acyl** steroids
AUTHOR(S): Roux-Schmitt, Marie Claude; Seyden-Penne, Jacqueline
CORPORATE SOURCE: Univ. Paris-Sud, Orsay, 91405, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1986), (1), 109-14
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
OTHER SOURCE(S): CASREACT 106:33370
GI



III



IV



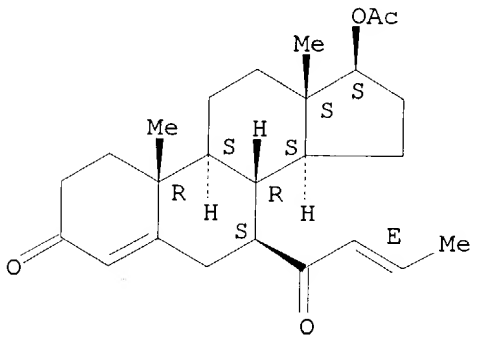
V

AB The 1,6 addn. of lithiated RCH2CN (R = Ph; p-MeOC6H4) (I) or R1CH(CN)OCH(Me)OEt (R1 = Ph, MeCH:CH) (II) to dienones III, IV, and V required anionic activation, since the yields were higher in THF-HMPA than those in pure THF. I and II attacked from the .alpha.-side of III with a high stereoselectivity. With IV, I gave a mixt. of two stereoisomers which were sepd. and to which the .alpha. or the .beta. configuration was assigned by high-field NMR. With II, IV and V produced 3-keto-7.beta.-**acyl** steroids, which were characterized by 400 MHz 1H NMR.

IT **106112-09-8P 106112-10-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

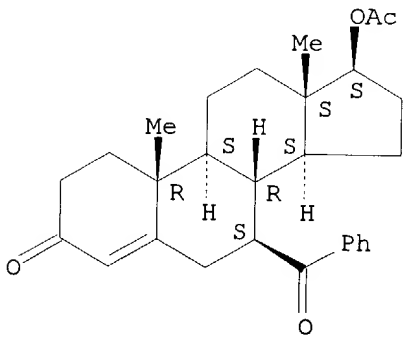
RN 106112-09-8 CAPLUS
CN Androst-4-en-3-one, 17-(acetyloxy)-7-(1-oxo-2-butenyl)-, [7.beta.(E),17.beta.]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 106112-10-1 CAPLUS
CN Androst-4-en-3-one, 17-(acetyloxy)-7-benzoyl-, (7.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



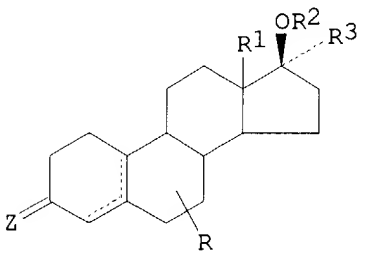
L8 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1986:62073 CAPLUS

DOCUMENT NUMBER: 104:62073
TITLE: Steroids for use as immunomodulators
INVENTOR(S): Kelder, Jan; Verheul, Hermanus Antonius Maria
PATENT ASSIGNEE(S): AKZO N. V., Neth.
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 159739	A1	19851030	EP 1985-200423	19850320
EP 159739	B1	19890510		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4701450	A	19871020	US 1985-712438	19850318
JP 60209599	A2	19851022	JP 1985-56258	19850320
JP 05041122	B4	19930622		
AT 42895	E	19890515	AT 1985-200423	19850320

PRIORITY APPLN. INFO.: NL 1984-888 19840321
EP 1985-200423 19850320

GI



I

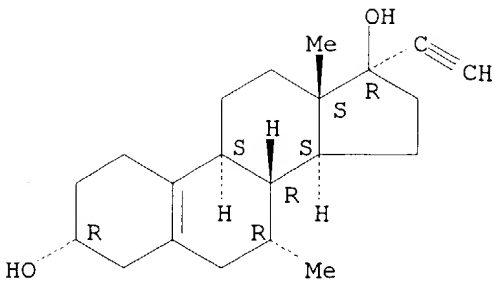
AB Estranes I [R, R1 = C1-4 alkyl; R2 = H, C1-18 **acyl**; R3 = H, C1-4 hydrocarbyl; Z = H2, H(OR4), O; R4 = H, C1-18 **acyl**; broken lines = C4-C5 or C5-C10 double bonds] are immunomodulators, esp. suitable for treatment of autoimmune diseases. Thus, tibolone (0.1 mg/animal/day) inhibited the expression of autoimmune diseases resembling Sjogren's syndrome and systemic lupus erythematosus in the NZB/W mouse model.

IT **100239-44-9 100239-45-0**
RL: BIOL (Biological study)
(immunosuppressant, for autoimmune diseases)

RN 100239-44-9 CAPLUS

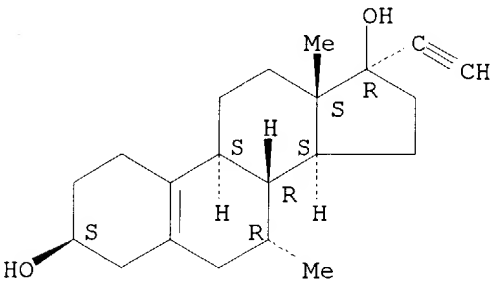
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 7-methyl-, (3.alpha.,7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 100239-45-0 CAPLUS
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 7-methyl-,
(3.beta.,7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

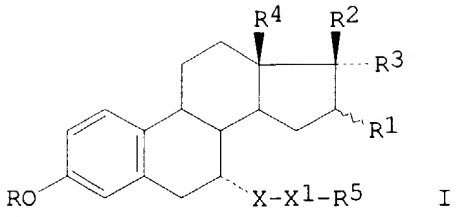


L8 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1985:505214 CAPLUS
DOCUMENT NUMBER: 103:105214
TITLE: Steroid derivatives
INVENTOR(S): Bowler, Jean; Tait, Brian Steele
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

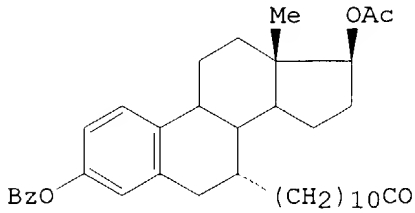
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 138504	A2	19850424	EP 1984-306715	19841002
EP 138504	A3	19860312		
EP 138504	B1	19880720		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4659516	A	19870421	US 1984-656466	19841001
AT 35814	E	19880815	AT 1984-306715	19841002
JP 60097995	A2	19850531	JP 1984-212766	19841012
JP 02016759	B4	19900418		

PRIORITY APPLN. INFO.: GB 1983-27256 19831012
EP 1984-306715 19841002

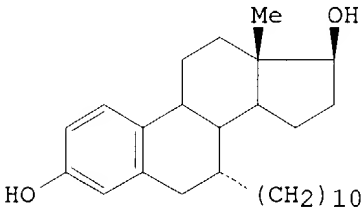
GI



I



II



III

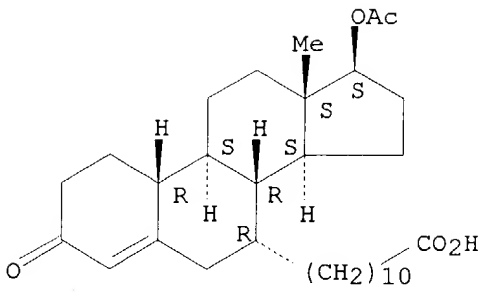
AB Antiestrogenic (no data) estratrienes I [R = H, alkyl, **acyl**, alkoxycarbonyl, carboxyacyl; R1 = H, alkyl, HO; R2 = HO, acyloxy, carboxyacyl; R3 = H, alkyl, alkenyl, alkynyl; R2R3 = O; R4 = alkyl; X = (un)fluorinated alkanediyl, alkynediyl, Q-Z-Q1 (Q, Q1 = (un)fluorinated alkanediyl, alkynediyl, bond; Z = O, S, SO, SO2, CO, NH, alkylimino, NHCO, CO2, C6H4); X1 = CONR6, CSNR6, NR7CO, NR7CS, NR7CONR6, NR7C(:NR8)NR6, SO2NR6, O, NR6, (NO)R6, (PO)R6, NR7CO2, NR7SO2, S, SO2; R5 = H, alkyl, alkenyl, aryl; R5R6 = alkylene to form heterocycle; R7 = H, alkyl; R8 = H, cyano, NO2) were prepd. Thus, the estratrienylundecanoic acid II was treated N-methylmorpholine, ClCO2CH2CHMe2, and BuNH2 and the resulting amide was sapond. to give the undecanamide III.

IT **91454-70-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(bromination of)

RN 91454-70-5 CAPLUS

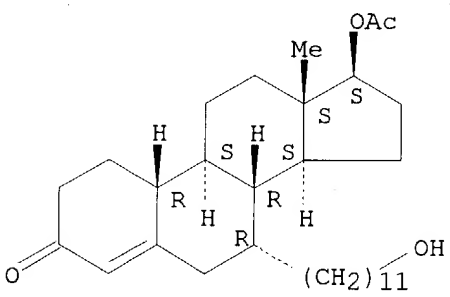
CN Estr-4-ene-7-undecanoic acid, 17-(acetyloxy)-3-oxo-, (7.alpha.,17.beta.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



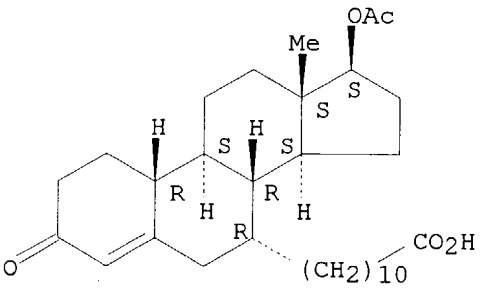
IT **98008-55-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetylation, and oxidn. of)
RN 98008-55-0 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-(11-hydroxyundecyl)-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **91454-70-5P 98008-36-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and aromatization of)
RN 91454-70-5 CAPLUS
CN Estr-4-ene-7-undecanoic acid, 17-(acetyloxy)-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

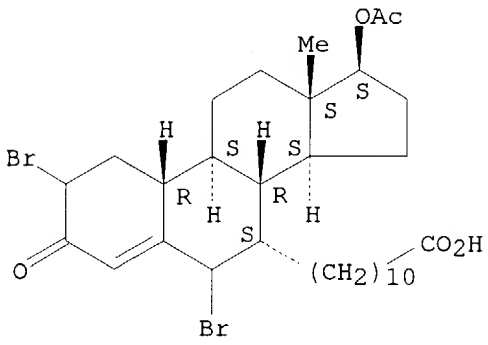
Absolute stereochemistry.



RN 98008-36-7 CAPLUS

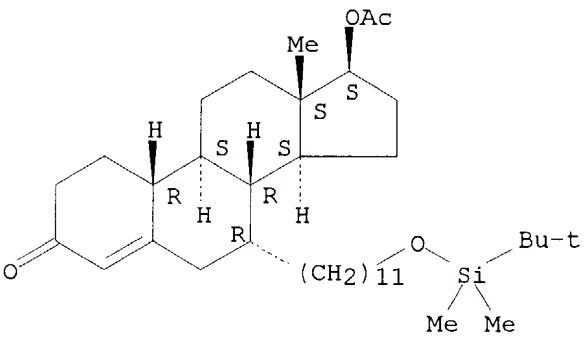
CN Estr-4-ene-7-undecanoic acid, 17-(acetyloxy)-2,6-dibromo-3-oxo-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **98008-54-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and desilylation of)
RN 98008-54-9 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-[11-[[(1,1-dimethylethyl)dimethylsilyl]oxy]undecyl]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

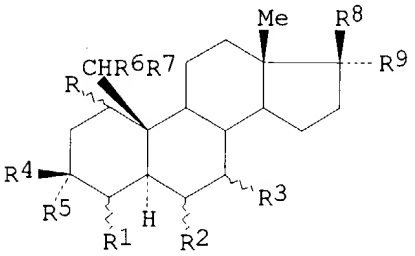


L8 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1979:575613 CAPLUS
DOCUMENT NUMBER: 91:175613
TITLE: 19-Oxygenated-5.alpha.-androstanes for the enhancement of libido
INVENTOR(S): Grunwell, Joyce F.; Petrow, Vladimir
PATENT ASSIGNEE(S): Richardson-Merrell Inc., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent

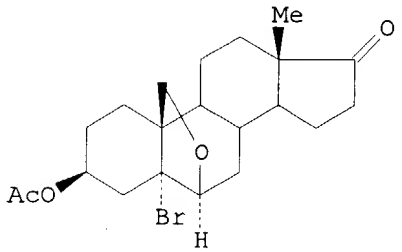
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4071625	A	19780131	US 1977-766237	19770207

PRIORITY APPLN. INFO.: US 1974-469478 19740513
GI



I



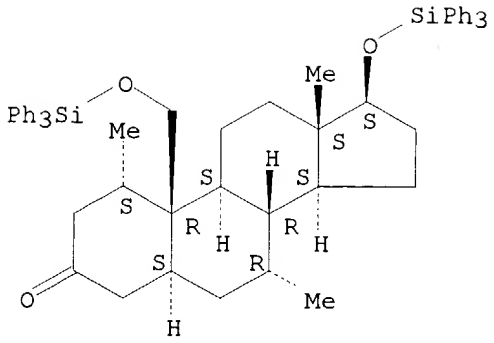
II

AB Androstanes I [R-R3 = H, Me; R4R5 = H2, O; R6R7, R8R9 = O; R4, R6, R8 = OR10, R5, R7 = H; R9 = H, C1-6 alkyl, C2-6 alkenyl, alkynyl; R10 = H, C1-12 **acyl**, C1-3 alkyl, trialkylsilyl, Ph3Si, tetrahydropyranyl, C5-7 cycloalkenyl, 1-methoxy or 1-ethoxy substituted C5-7 cycloalkyl] (.apprx.90 compds.) were prepd. and enhanced diminished libido in mammals without evoking androgenic or estrogenic response upon secondary sex structures. Thus, bromohydroxylation of 3.beta.-acetoxyandrost-5-en-17-one by AcNHBr in aq. HClO4 gave 3.beta.-hydroxy-5.alpha.-bromo-6.beta.-hydroxyandrostan-17-one, which underwent photochem. iodination-cyclization to give the epoxyandrostane II. Treatment of II with Zn powder in refluxing EtOH gave 3.beta.-acetoxy-19-hydroxyandrost-5-en-17-one. Addn. of LiCH:CH2 and KC.tplbond.CH to 3.beta.,19-dihydroxy-5.alpha.-androstan-17-one gave 17-vinyl- and 17-ethynyl-5.alpha.-androstane-3.beta.,19,17.beta.-triol. Dehydrogenation of 17.beta.,19-bis(propionyloxy)androst-4-en-3-one by dichlorodicyanobenzoquinone and subsequent treatment with LiCuMe3 gave 1.alpha.-methyl-17.beta.,19-bis(propionyloxy)androst-4-en-3-one. Treatment of castrated-adrenalectomized rats with testosterone or 17.beta.,19-diacetoxy-5.alpha.-androstan-3-one (III) for 8 days caused resumption of presurgical sexual behavior, but the somatic androgenic effect upon sex accessory organs of immature castrated rats was less when treated with III compared to treatment with testosterone.

IT **67212-18-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

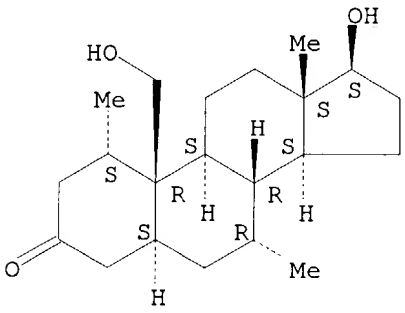
RN 67212-18-4 CAPLUS
CN Androstan-3-one, 1,7-dimethyl-17,19-bis[(triphenylsilyl)oxy]-, (1.alpha.,5.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **67212-17-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chlorotriphenylsilane)
RN 67212-17-3 CAPLUS
CN Androstan-3-one, 17,19-dihydroxy-1,7-dimethyl-,
(1.alpha.,5.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

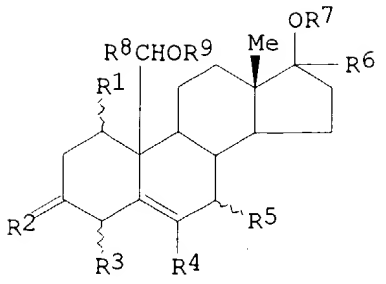
Absolute stereochemistry.



L8 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1979:210129 CAPLUS
DOCUMENT NUMBER: 90:210129
TITLE: 19-Oxygenated-androst-5-enes for the enhancement of libido
INVENTOR(S): Grunwell, Joyce F.; Petrow, Vladimir
PATENT ASSIGNEE(S): Richardson-Merrell Inc., USA
SOURCE: U.S., 24 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4139617	A	19790213	US 1977-766613	19770207

PRIORITY APPLN. INFO.: US 1974-469477 19740513
GI



I

AB The title compds. (I), where R1, R3, R4, and R5 = H or Me; R2 = H2, O, or H, OR10; R6 = H, alkyl, alkenyl, alkynyl, or O (when taken together with OR7); R7, R9, and R10 = H, **acyl**, trialkylsilyl, triphenylsilyl, tetrahydropyranyl, cycloalkenyl, or alkoxycycloalkyl; R8 = H or O (when taken with OR8), enhanced a diminished libido in mammals without evoking any overt androgen or estrogenic response upon the secondary sex structures. Thus, 3.beta.-hydroxy-5-androsten-17-one acetate [853-23-6] was treated with AcNHBr in presence of HClO4 to give 5.alpha.-bromo-3.beta.,6.beta.-dihydroxyandrostan-17-one-3-acetate (II) [4229-69-0].

II

was refluxed with a suspension of Pb(OAc)4 and CaCO3 in cyclohexane and with iodine to give 5.alpha.-bromo-3.beta.-hydroxy-6.beta.,19-oxidoandrostan-17-one acetate [2685-64-5] which was refluxed with Zn powder to give 3.beta.,19-dihydroxy-5-androsten-17-one 3-acetate (III) [2857-42-3]. Castrated adrenalectomized rats treated with III approached their presurgical sexual pattern of behavior after .apprx.12 days of treatment. The somatic androgenic effect upon the sex accessory organs

of

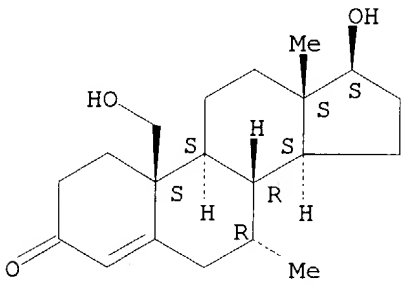
immature castrated rats receiving III was less than with similar animals receiving testosterone treatment. Tablet, capsule, and i.m. injections contg. I were prepd.

IT **67702-98-1**
RL: BIOL (Biological study)
(isomerization and reaction with dihydropyran)

RN 67702-98-1 CAPLUS

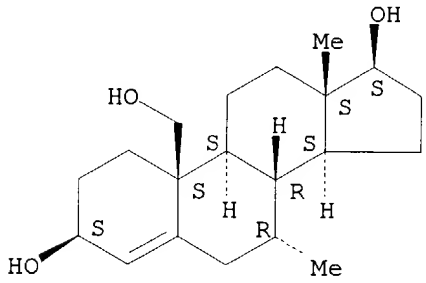
CN Androst-4-en-3-one, 17,19-dihydroxy-7-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



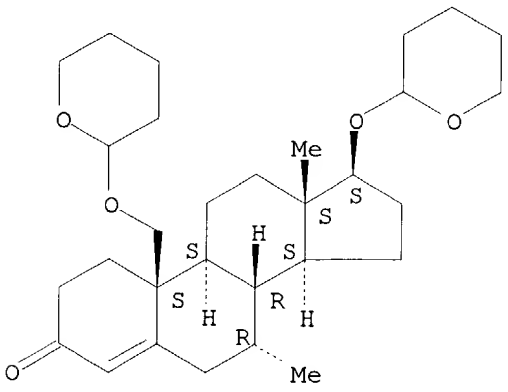
IT **69996-46-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and oxidn. of)
RN 69996-46-9 CAPLUS
CN Androst-4-ene-3,17,19-triol, 7-methyl-, (3.beta.,7.alpha.,17.beta.)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

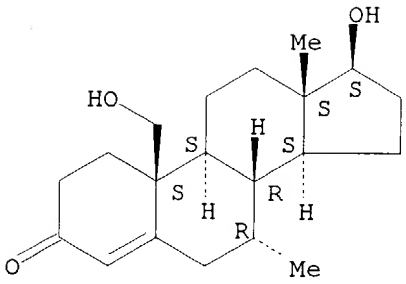


IT **67703-03-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 67703-03-1 CAPLUS
CN Androst-4-en-3-one, 7-methyl-17,19-bis[(tetrahydro-2H-pyran-2-yl)oxy]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

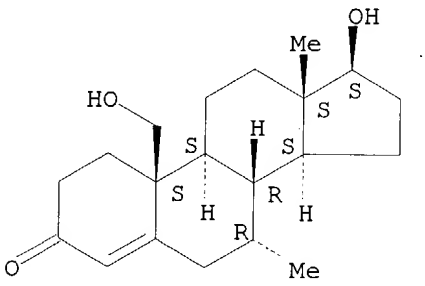


L8 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1978:597806 CAPLUS
DOCUMENT NUMBER: 89:197806
TITLE: Androst-4-en-19-ols for the enhancement of libido
INVENTOR(S): Grunwell, Joyce F.; Petrow, Vladimir
PATENT ASSIGNEE(S): Richardson-Merrell Inc., USA
SOURCE: U.S., 20 pp.



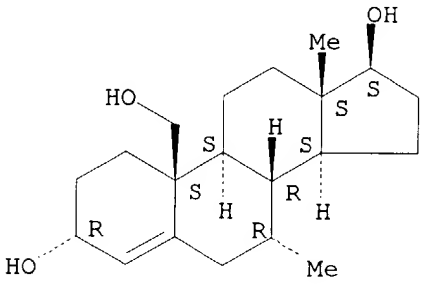
IT **67702-98-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with dihydropyran)
RN 67702-98-1 CAPLUS
CN Androst-4-en-3-one, 17,19-dihydroxy-7-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **67702-99-2P 67703-03-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 67702-99-2 CAPLUS
CN Androst-4-ene-3,17,19-triol, 7-methyl-, (3.alpha.,7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

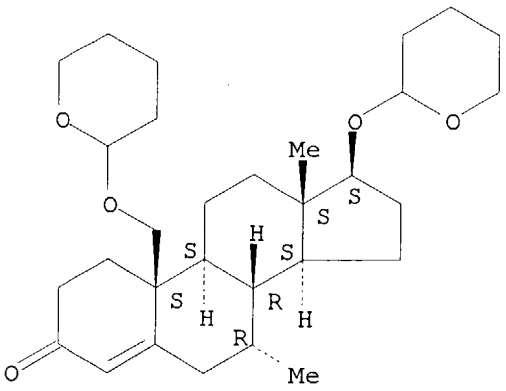
Absolute stereochemistry.



RN 67703-03-1 CAPLUS

CN Androst-4-en-3-one, 7-methyl-17,19-bis[(tetrahydro-2H-pyran-2-yl)oxy]-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L8 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1978:191243 CAPLUS
DOCUMENT NUMBER: 88:191243
TITLE: 7-Substituted 4-androsten-3-ones
INVENTOR(S): Kerb, Ulrich; Wiechert, Rudolf; Prezewowsky, Klaus; Philippson, Rainer; Krieger, Bernhard; Casals-Stenzel, Jorge; Losert, Wolfgang
PATENT ASSIGNEE(S): Schering A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 28 pp. Addn. to Ger. Offen. 2,609,695.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

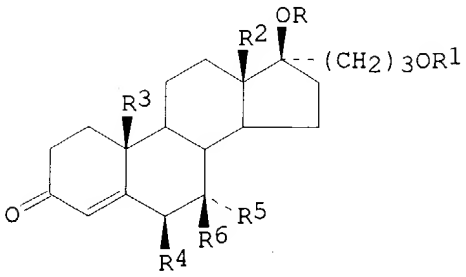
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2627186	A1	19771229	DE 1976-2627186	19760616
AU 7722633	A1	19780831	AU 1977-22633	19770224
AU 513542	B2	19801211		
CH 631462	A	19820813	CH 1977-2613	19770302
DD 128659	C	19771130	DD 1977-197658	19770303
US 4118488	A	19781003	US 1977-773982	19770303
SU 755202	D	19800807	SU 1977-2457127	19770303
AT 7701413	A	19810615	AT 1977-1413	19770303
AT 365611	B	19820210		
IL 51586	A1	19811030	IL 1977-51586	19770303
DK 7700961	A	19770906	DK 1977-961	19770304
DK 146856	B	19840123		
DK 146856	C	19840702		
SE 7702455	A	19770906	SE 1977-2455	19770304
SE 420732	B	19811026		
SE 420732	C	19820204		

NL 7702369	A	19770907	NL 1977-2369	19770304
JP 52111552	A2	19770919	JP 1977-23703	19770304
ES 456543	A1	19780301	ES 1977-456543	19770304
CA 1078826	A1	19800603	CA 1977-273185	19770304
HU 181969	B	19831128	HU 1977-SC597	19770304
HU 24156	O	19821228		
FR 2342990	A1	19770930	FR 1977-6567	19770307
FR 2342990	B1	19790309		
GB 1579298	A	19801119	GB 1977-9464	19770307
CH 629225	A	19820415	CH 1981-3067	19810512
DK 8204033	A	19820909	DK 1982-4033	19820909

PRIORITY APPLN. INFO.:

DE 1976-2609694	19760305
DE 1976-2609695	19760305
DE 1976-2627186	19760616
DE 1976-2627187	19760616
DE 1976-2644427	19760930
DE 1976-2646043	19761008
CH 1977-2613	19770302
DK 1977-961	19770304

GI



I

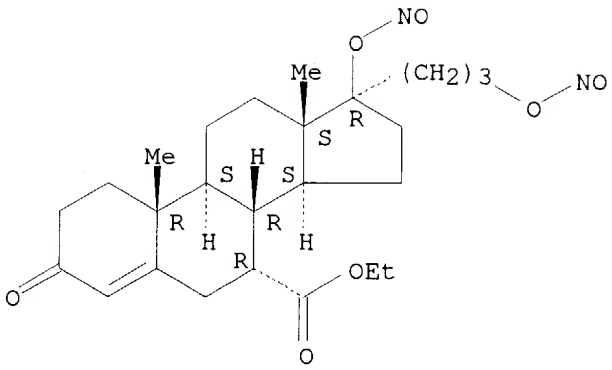
AB Androstenones I (R = H, inorg. ester; R1 = H, **acyl**, alkyl; R2 = Me, Et; R3 = H, Me, R4 = R6 = H, R5 = acylthio, alkoxycarbonyl; R4R6 = CH2) were prepd. Thus, 17.beta.-hydroxy-17-(3-hydroxypropyl)estra-4,6-dien-3-one was acetylated with Ac2O for 24 h to give the diacetate which was refluxed with AcSH for 1 h to give I (R = R1 = Ac, R2 = Me, R3 = R4 = R6 = H, R5 = SAc).

IT **65928-45-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

RN 65928-45-2 CAPLUS

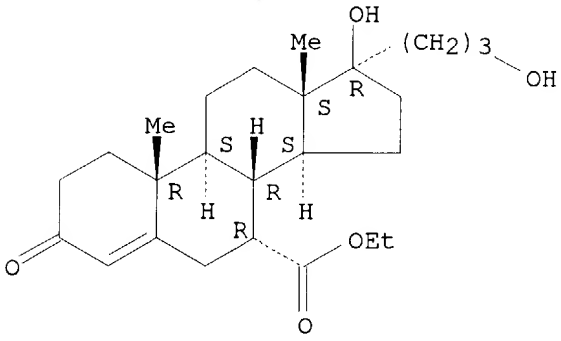
CN Androst-4-ene-7-carboxylic acid, 17-(nitrosooxy)-17-[3-(nitrosooxy)propyl]-3-oxo-, ethyl ester, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **65049-55-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 65049-55-0 CAPLUS
CN Androst-4-ene-7-carboxylic acid, 17-hydroxy-17-(3-hydroxypropyl)-3-oxo-, ethyl ester, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L2 0 S L1
L3 912 S L1 FULL

FILE 'CAPLUS' ENTERED AT 13:46:00 ON 13 DEC 2003
L4 264 S L3
L5 1 S L4 AND 1,2-PROPADIENYL
L6 1 S L4 AND ISOPROPENYL
L7 0 S L4 AND ISOPROPYL
L8 20 S L4 AND ACYL

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=> d l1
L1 HAS NO ANSWERS
L1                STR
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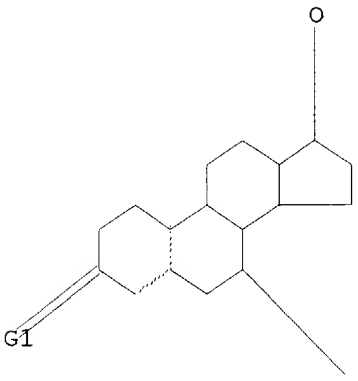

G1 H,O,No,Np

Structure attributes must be viewed using STN Express query preparation.

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Executing the logoff script...

=> LOG Y

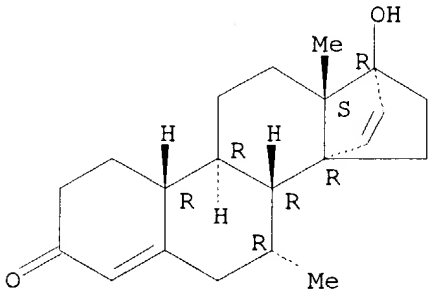
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	110.66	264.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-14.32	-14.32

STN INTERNATIONAL LOGOFF AT 13:51:42 ON 13 DEC 2003

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of androgenic ethenosteroids)
RN 551960-35-1 CAPLUS
CN 14,21-Cyclo-19-norpregna-4,15-dien-3-one, 17-hydroxy-7-methyl-, (7.alpha.,14.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



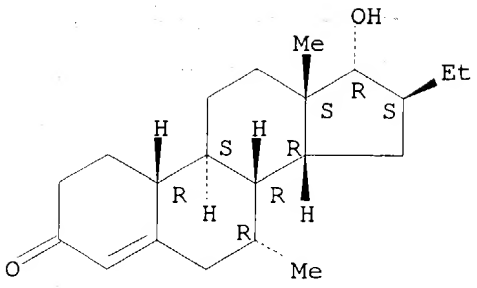
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L8 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:221704 CAPLUS
DOCUMENT NUMBER: 138:238333
TITLE: Preparation of 17.alpha.-hydroxy-14.beta.-steroids with hormonal effect
INVENTOR(S): Van der Louw, Jaap; Leysen, Dirk; De Gooijer, Marcel Evert
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022864	A1	20030320	WO 2002-EP10041	20020906

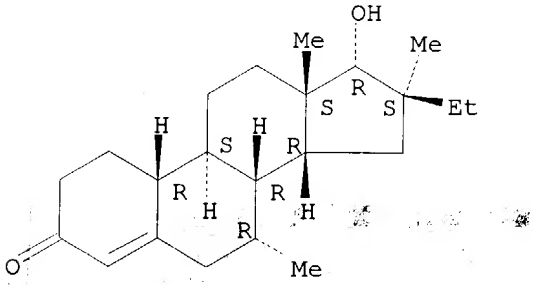
W: AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, RO, RU, SG, SI, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2001-203455 A 20010912
OTHER SOURCE(S): MARPAT 138:238333
GI



RN 501418-63-9 CAPLUS
CN Estr-4-en-3-one, 16-ethyl-17-hydroxy-7,16-dimethyl-, (7.alpha.,14.beta.,16.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



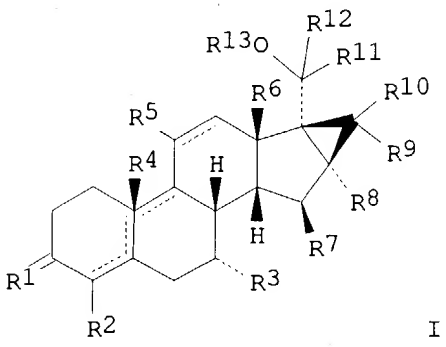
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:466029 CAPLUS
DOCUMENT NUMBER: 137:33455
TITLE: Preparation and androgenic activity of 16,17-methyleneestra-4-en-3-one derivatives
INVENTOR(S): Van der Louw, J.; Leysen, D.; De Gooijer, M. E.
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048171	A1	20020620	WO 2001-EP14481	20011205

W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2002024923 A5 20020624 AU 2002-24923 20011205
EP 1343806 A1 20030917 EP 2001-994774 20011205
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: EP 2000-204459 A 20001211
WO 2001-EP14481 W 20011205
OTHER SOURCE(S): MARPAT 137:33455
GI



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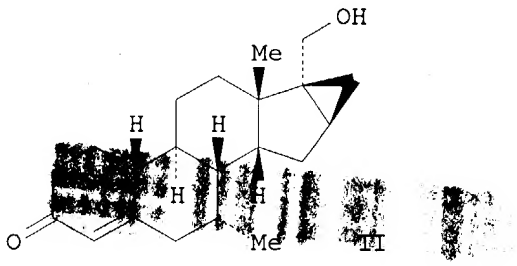


II

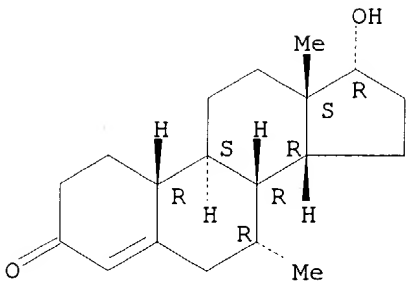
AB The androgenic steroids, such as I [R1 = O, (H,H), (H,OR), NOR, with R = H, alkyl, **acyl**; R2 = H, alkyl; R3 = H, alkyl, alkenyl, alkynyl, optionally substituted by halogen; R4 = H, alkyl; R5 = H, alkyl, alkenyl; R6 = alkyl; R7 = H, alkyl, alkenyl, alkoxy; R8 = H, alkyl; R9 and R10 = independently H, alkoxy, halogen, alkyl; R11 and R12 = independently H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, alkynyl, each optionally substituted by alkoxy, or halogen; R13 = H, SO3H, **acyl**; and the dotted lines indicate optional bonds], were prepd. The prepd. steroids can be used for the prepn. of an agent for male contraception, as well as for the prepn. of a medicament for the treatment of androgen insufficiency. Thus, (7.alpha.,14.beta.)-3-methoxy-7-methylestra-1,3,5(10)-trien-17-one was converted in 9 steps into II. II had excellent androgenic activity as detd. by a no. of procedures detailed within.

IT **436144-66-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and androgenic activity of 16,17-methyleneestra-4-en-3-one derivs.)

RN 436144-66-0 CAPLUS

CN Estr-4-en-3-one, 17-hydroxy-7-methyl-, (7.alpha.,14.beta.,17.alpha.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

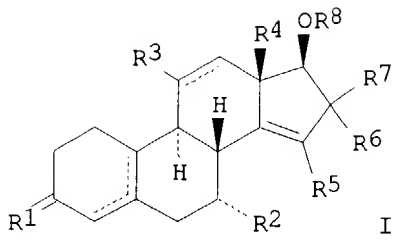
FORMAT

L8 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:466027 CAPLUS
DOCUMENT NUMBER: 137:33454
TITLE: Preparation of 14(15)-unsaturated 15- and/or 16-substituted androgens with mixed profile of androgenic and progestagenic activities
INVENTOR(S): Van der Louw, Jaap; Leysen, Dirk; De Gooijer, Marcel Evert
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048169	A1	20020620	WO 2001-EP14776	20011210
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002029663	A5	20020624	AU 2002-29663	20011210
EP 1343804	A1	20030917	EP 2001-990564	20011210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001016127	A	20031104	BR 2001-16127	20011210

PRIORITY APPLN. INFO.: EP 2000-204543 A 20001215
WO 2001-EP14776 W 20011210

OTHER SOURCE(S): MARPAT 137:33454
GI



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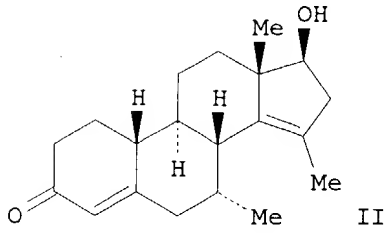


II

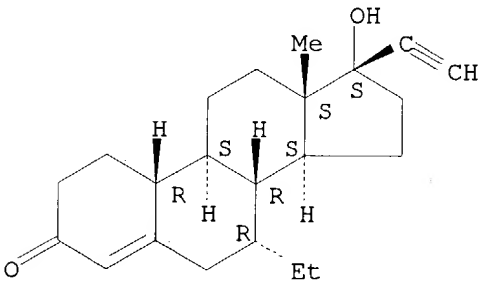
AB The androgenic steroids, such as I [R1 = O, (H,H), (H,OR), NOR, with R = H, alkyl, **acyl**; R2 = H, alkyl, alkenyl; R3 = H, alkyl, alkenyl, alkynyl; R4 = alkyl; R5 = H, alkyl, alkenyl; R6 and R7 = independently H, alkyl, alkenyl; R8 = H, **acyl**; and the dotted lines indicate optional bonds], were prepd. The prepd. steroids are characterized by possessing a mixed profile of androgenic and progestagenic activities. Thus, (7.alpha.)-3-methoxy-7-methylestra-1,3,5(10),15-tetraen-17-one was converted in 7 steps into II. II showed high androgenic activity and high progestational activity as detd. by procedures detailed within. This makes these compds. suitable for male or female hormone replacement therapy, as well as male contraception.

IT **436143-68-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 14(15)-unsatd. 15- and/or 16- substituted androgens with mixed profile of androgenic and progestagenic activities)

RN 436143-68-9 CAPLUS

CN 19-Norpregn-4-en-20-yn-3-one, 7-ethyl-17-hydroxy-, (7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:416964 CAPLUS
DOCUMENT NUMBER: 135:33598
TITLE: Preparation of androgenic 14,15-methyleneestr-4-en-3-

one derivatives.

INVENTOR(S): Leysen, Dirk; Van Der Louw, Jaap; Buma Bursi, Roberta;
De Gooyer, Marcel Evert
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001040255	A2	20010607	WO 2000-EP12009	20001129
WO 2001040255	A3	20011115		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000016092	A	20020730	BR 2000-16092	20001129
EP 1237904	A2	20020911	EP 2000-993259	20001129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003515543	T2	20030507	JP 2001-541010	20001129
NO 2002002564	A	20020530	NO 2002-2564	20020530
US 2003100543	A1	20030529	US 2002-148820	20020911

PRIORITY APPLN. INFO.: EP 1999-204080 A 19991202
WO 2000-EP12009 W 20001129

OTHER SOURCE(S): MARPAT 135:33598
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

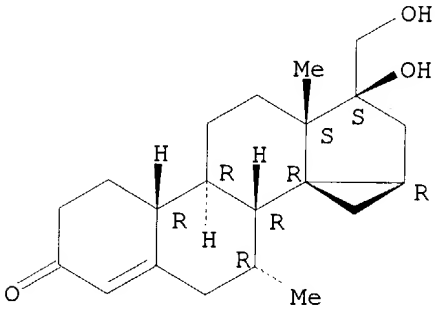
AB The androgenic title compds. I (R1 = O,(H,H), (H,OR), NOR, with R = H, (C1-6) alkyl, (C1-6) **acyl**; R2 = H or (C1-6) alkyl; R3 = H, (C2-6) alkenyl, or (C2-6) alkynyl, each optionally substituted by halogen;
R4 = H, (C1-6) alkyl, or (C2-6) alkenyl; R5 = (C1-6) alkyl; R6 = H, halogen, or (C1-4) alkyl; R7 = H or (C1-6) alkyl; R7 = H or (C1-6) alkyl; R8 = H, OH, (C1-6) alkoxy, halogen, or (C1-6) alkyl; R9 and R10 = independently H; or R9 and R10 = independently (C1-6) alkyl, (C2-6) alkenyl, (C3-6) cycloalkyl, (C5-6) cycloalkenyl, or (C2-6) alkynyl, each optionally substituted by (C1-4) alkoxy, or halogen; R11 = H, SO3H, (C1-15) **acyl**; and the dotted lines indicate optional bonds, selected from a .DELTA.4, .DELTA.5(10), or .DELTA.11 double bond, or a .DELTA.4,9 or .DELTA.4,11 diene system) were prepd. These derivs. can be used for the prepn. of an agent for male contraception, as well as for the

prepn. of a medicament for the treatment of androgen insufficiency. Thus,
(7.alpha.,17.beta.)-3-methoxy-7-methylestra-1,3,5(10),14-tetraen-17-ol II was converted in 7 steps into (7.alpha.,14.beta.,15.beta.,17.alpha.)-17-(hydroxymethyl)-7-methyl-14,15-methyleneestr-4-en-3-one III. III had excellent androgenic activity as detd. by a no. of procedures detailed within.

IT **343626-97-1P 343627-19-0P 343627-20-3P**
343627-23-6P 343627-29-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of androgenic 14,15-methyleneestr-4-en-3-one derivs.)

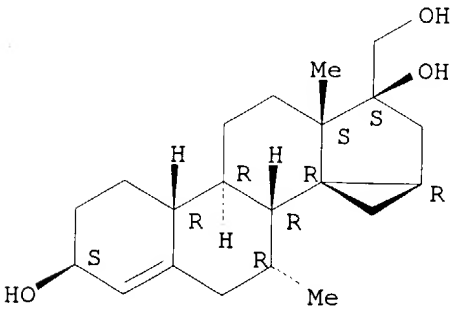
RN 343626-97-1 CAPLUS
CN Cycloprop[14,15]estr-4-en-3-one, 3',15-dihydro-17-hydroxy-17-(hydroxymethyl)-7-methyl-, (7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343627-19-0 CAPLUS
CN Cycloprop[14,15]estr-4-ene-3,17-diol, 3',15-dihydro-17-(hydroxymethyl)-7-methyl-, (3.beta.,7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

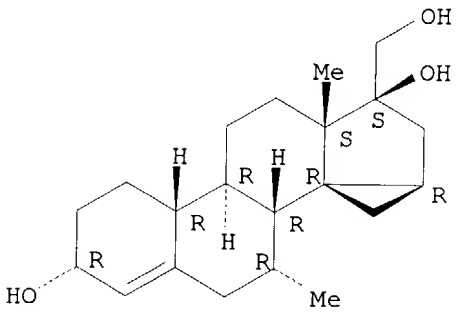
Absolute stereochemistry.



RN 343627-20-3 CAPLUS
CN Cycloprop[14,15]estr-4-ene-3,17-diol, 3',15-dihydro-17-(hydroxymethyl)-7-

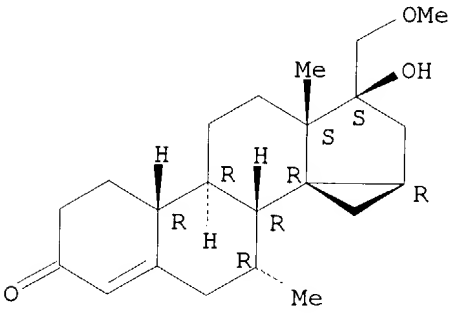
methyl-, (3.alpha.,7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



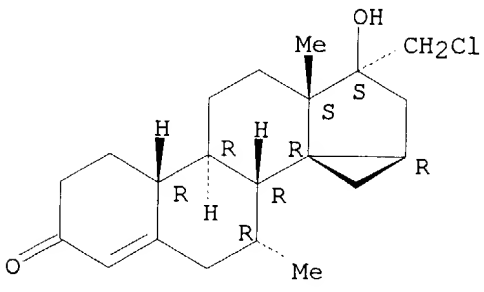
RN 343627-23-6 CAPLUS
CN Cycloprop[14,15]estr-4-en-3-one, 3',15-dihydro-17-hydroxy-17-(methoxymethyl)-7-methyl-, (7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



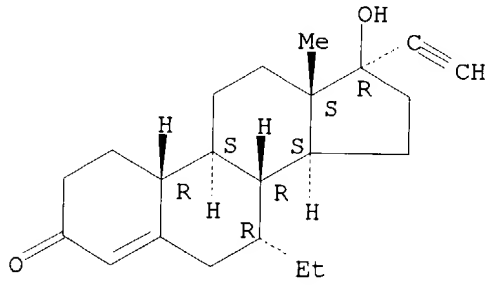
RN 343627-29-2 CAPLUS
CN Cycloprop[14,15]estr-4-en-3-one, 17-(chloromethyl)-3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14R,15.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



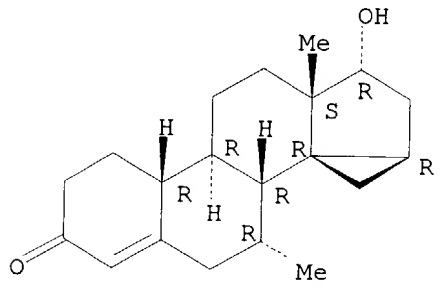
IT **319003-87-7P 343627-25-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of androgenic 14,15-methyleneestr-4-en-3-one derivs.)
RN 319003-87-7 CAPLUS
CN 19-Norpregn-4-en-20-yn-3-one, 7-ethyl-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343627-25-8 CAPLUS
CN Cycloprop[14,15]estr-4-en-3-one, 3',15-dihydro-17-hydroxy-7-methyl-, (7.alpha.,14R,15.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

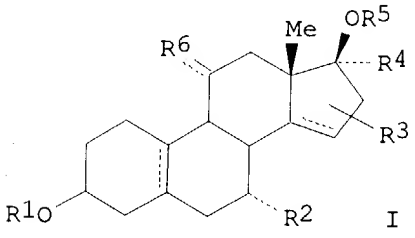


L8 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:185776 CAPLUS
DOCUMENT NUMBER: 134:208008
TITLE: Preparation of non-aromatic estrogenic steroids with a hydrocarbon substituent in position 11
INVENTOR(S): Loozen, Hubert Jan Jozef; Veeneman, Gerrit Herman; Schoonen, Wilhelmus Gerardus Eduardus Joseph
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

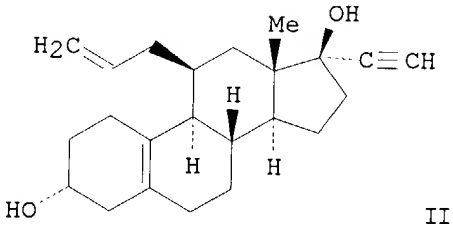
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018027	A1	20010315	WO 2000-EP8406	20000828
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000013769	A	20020430	BR 2000-13769	20000828
EP 1224204	A1	20020724	EP 2000-964053	20000828
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
NZ 517281	A	20030926	NZ 2000-517281	20000828
NO 2002001079	A	20020429	NO 2002-1079	20020305
PRIORITY APPLN. INFO.:			EP 1999-202900 A	19990906
			WO 2000-EP8406 W	20000828

OTHER SOURCE(S): MARPAT 134:208008

GI



I



II

AB Disclosed are novel, selective estrogens of formula I [R1, R5 = H, alkyl, **acyl**; R2, R3 = H, alkyl, alkenyl, alkynyl; R4 = H, alkyl, alkenyl, ethynyl, alkynyl; R6 = alkyl, alkenyl, alkynyl, alkylidene] having a steroid skeleton with a non-arom. A-ring and a free or capped hydroxyl group at carbon atom No. 3. Thus, II is prepd. and tested for estrogen receptor activity and antiestrogenic activity.

IT **329027-10-3P 329027-11-4P 329027-18-1P 329027-19-2P 329027-29-4P**

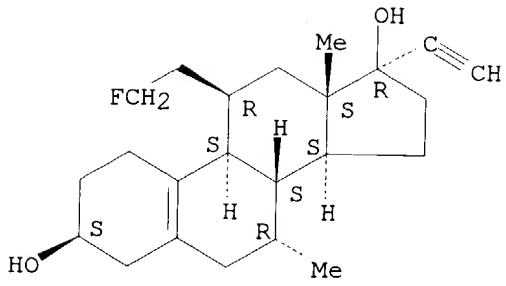
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 11-substituted non-arom. estrogenic steroids for the treatment of estrogen-deficiency dependent disorders)

RN 329027-10-3 CAPLUS

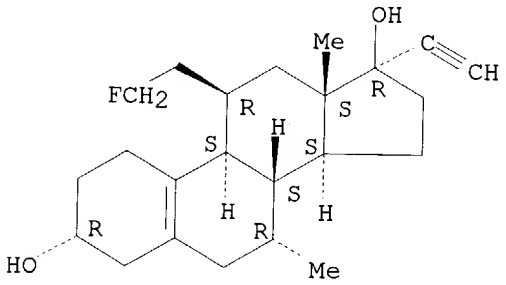
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 11-(2-fluoroethyl)-7-methyl-, (3.beta.,7.alpha.,11.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



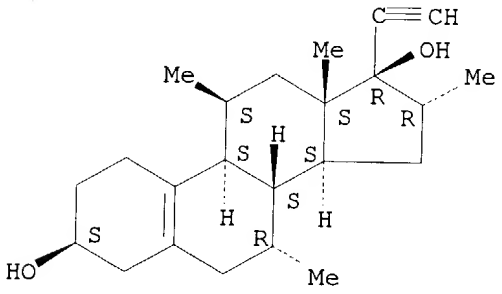
RN 329027-11-4 CAPLUS
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 11-(2-fluoroethyl)-7-methyl-, (3.alpha.,7.alpha.,11.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



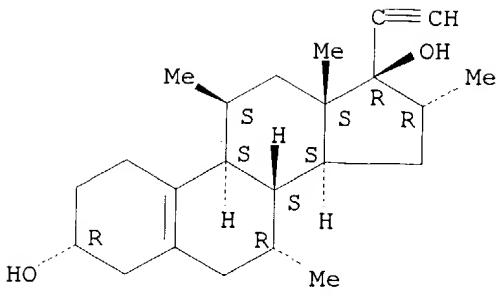
RN 329027-18-1 CAPLUS
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 7,11,16-trimethyl-, (3.beta.,7.alpha.,11.beta.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



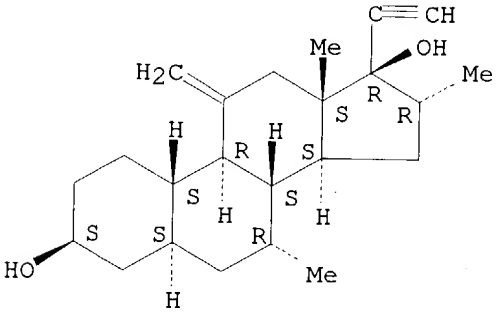
RN 329027-19-2 CAPLUS
CN 19-Norpregn-5(10)-en-20-yne-3,17-diol, 7,11,16-trimethyl-, (3.alpha.,7.alpha.,11.beta.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



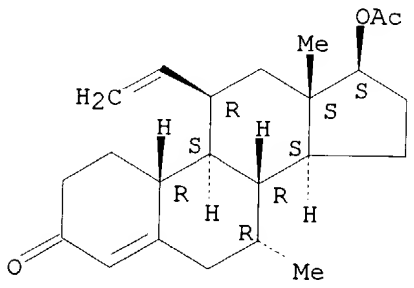
RN 329027-29-4 CAPLUS
CN 19-Norpregn-20-yne-3,17-diol, 7,16-dimethyl-11-methylene-, (3.beta.,5.alpha.,7.alpha.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **329027-00-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 11-substituted non-arom. estrogenic steroids for the treatment of estrogen-deficiency dependent disorders)
RN 329027-00-1 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-11-ethenyl-7-methyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

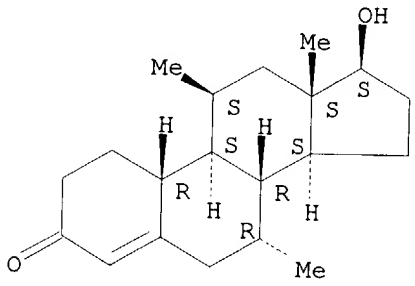


IT **226066-52-0P 226066-53-1P 329027-09-0P**
329027-17-0P 329027-27-2P 329027-28-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(prepn. of 11-substituted non-arom. estrogenic steroids for the treatment of estrogen-deficiency dependent disorders)

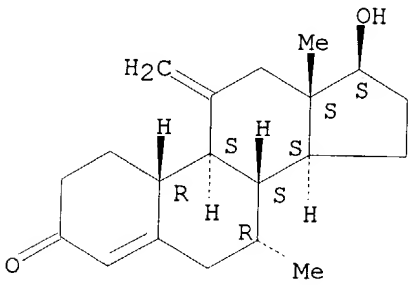
RN 226066-52-0 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7,11-dimethyl-, (7.alpha.,11.beta.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



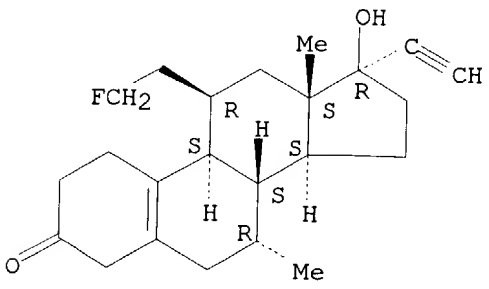
RN 226066-53-1 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7-methyl-11-methylene-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

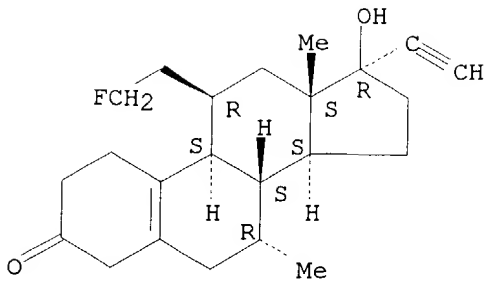
Absolute stereochemistry.



RN 329027-09-0 CAPLUS
CN 19-Norpregn-5(10)-en-20-yn-3-one, 11-(2-fluoroethyl)-17-hydroxy-7-methyl-, (7.alpha.,11.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

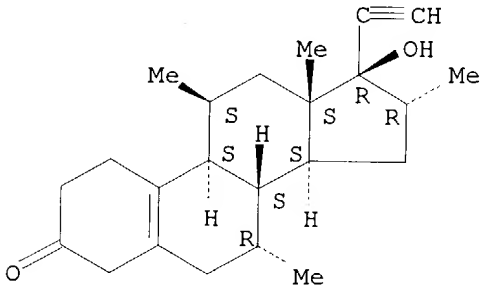
Absolute stereochemistry.





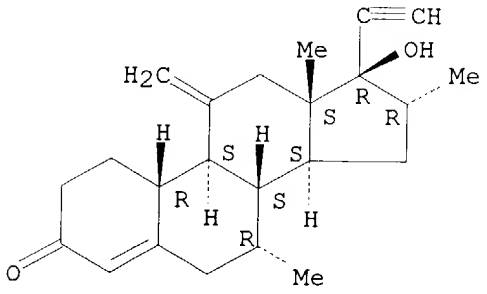
RN 329027-17-0 CAPLUS
CN 19-Norpregn-5(10)-en-20-yn-3-one, 17-hydroxy-7,11,16-trimethyl-, (7.alpha.,11.beta.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 329027-27-2 CAPLUS
CN 19-Norpregn-4-en-20-yn-3-one, 17-hydroxy-7,16-dimethyl-11-methylene-, (7.alpha.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 329027-28-3 CAPLUS
CN 19-Norpregn-20-yn-3-one, 17-hydroxy-7,16-dimethyl-11-methylene-, (5.alpha.,7.alpha.,16.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

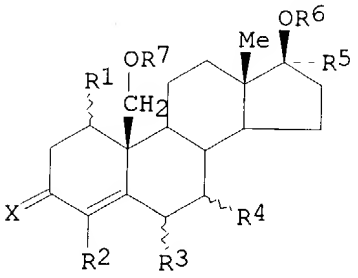
Absolute stereochemistry.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4087524	A	19780502	US 1977-766238	19770207
US 4239681	A	19801216	US 1974-461011	19740415

PRIORITY APPLN. INFO.: US 1973-329849 19730205
US 1974-461011 19740415

GI



I

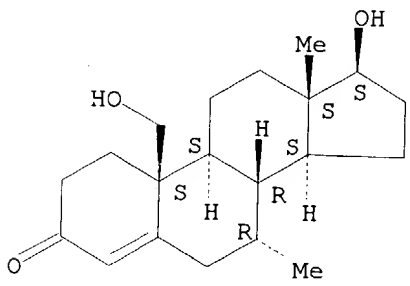
AB Androstenols I (X = H2, O, H,OR; R, R6, R7 = H, C1-12 **acyl**, C1-3 alkyl, trialkylsilyl, Ph3Si, tetrahydropyran-2-yl, tetrahydropyran-4-yl, 1-cycloalkenyl, 1-methoxycycloalkyl, 1-ethoxycycloalkyl; R1, R2, R3, R4 = H, Me; R5 = H, C1-6 alkyl, C2-1 alkenyl, C2-6 alkynyl), useful agents for enhancing a diminished libido in man (no data), were prepd.. Thus, 17.beta.,19-bis(propinyloxy)androst-1,4-dien-3-one was treated with Me2CuLi and was hydrolyzed to give 17.beta.,19-dihydroxy-1.alpha.-methylandrost-4-en-3-one which was reduced by NaBH4 to give 1.alpha.-methylandrost-4-ene-3.beta.,17.beta.,19-triol.

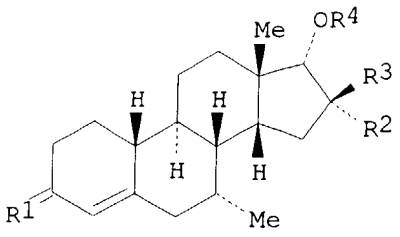
IT **67702-98-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydride redn. of)

RN 67702-98-1 CAPLUS

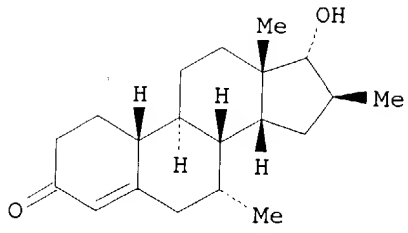
CN Androst-4-en-3-one, 17,19-dihydroxy-7-methyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





I



II

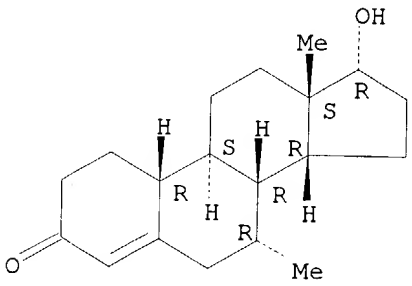
AB Steroidal compds. of formula I [R1 = O, H2, OH, NOH, whereby OH is optionally etherified or esterified; R2, R3 = H, alkyl; R4 = H, **acyl**] for use in androgen-related treatments, such as androgen insufficiency and male contraception. Thus, II was prepd. from (7.alpha.,14.beta.)-3-methoxy-7-methylestra-1,3,5(10)-trien-17-one. II had 99% androgen activity compared to 5.alpha.-dihydrotestosterone.

IT **436144-66-0P 501418-59-3P 501418-60-6P**
501418-61-7P 501418-62-8P 501418-63-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 17.alpha.-hydroxy-14.beta.-estrenes for use in androgen-related treatments)

RN 436144-66-0 CAPLUS

CN Estr-4-en-3-one, 17-hydroxy-7-methyl-, (7.alpha.,14.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

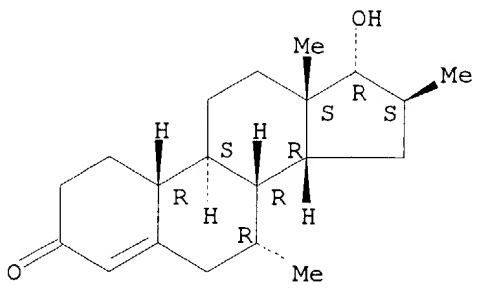
Absolute stereochemistry. Rotation (+).



RN 501418-59-3 CAPLUS

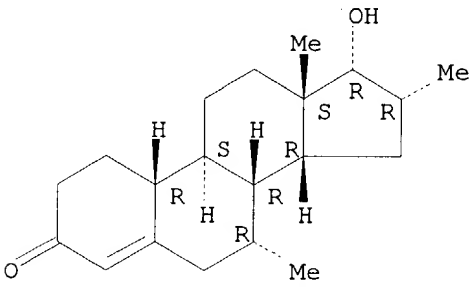
CN Estr-4-en-3-one, 17-hydroxy-7,16-dimethyl-, (7.alpha.,14.beta.,16.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



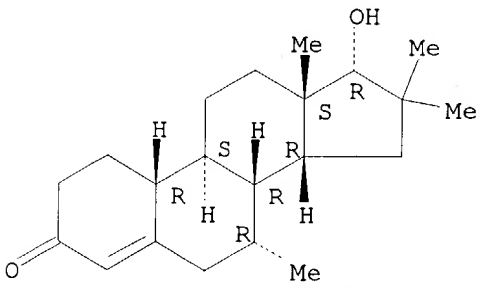
RN 501418-60-6 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7,16-dimethyl-,
(7.alpha.,14.beta.,16.alpha.,1
7.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 501418-61-7 CAPLUS
CN Estr-4-en-3-one, 17-hydroxy-7,16,16-trimethyl-,
(7.alpha.,14.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

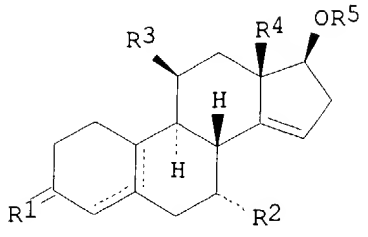
Absolute stereochemistry. Rotation (+).



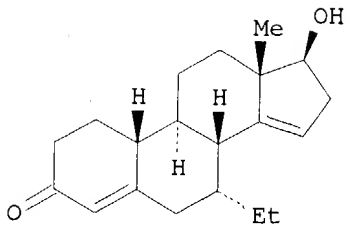
RN 501418-62-8 CAPLUS
CN Estr-4-en-3-one, 16-ethyl-17-hydroxy-7-methyl-,
(7.alpha.,14.beta.,16.beta.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

OTHER SOURCE(S): MARPAT 134:101064
GI



I



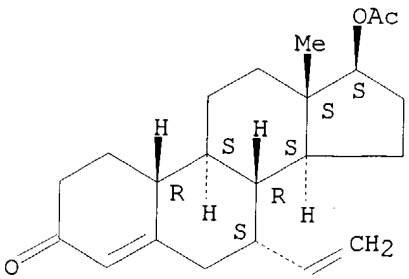
II

AB Novel 7.alpha.-substituted .DELTA.14 orally active androgens of formula I [R1 = O, H2, (substituted) OH, N-alkoxy; R2 = alkyl, alkenyl, cyclopropyl, etc.; R3 = H, alkyl, ethenyl; R4 = alkyl; R5 = H, **acyl**] are prepd. Thus, II was prepd. from 17.alpha.-hydroxy-19-norpregna-4,6-dien-20-yn-3-one in several steps. Compd. II was shown to be orally active in the LH suppression assay, and has metabolic stability.

IT **293303-46-5P 293303-47-6P 300542-24-9P 300542-25-0P 319003-87-7P 319003-95-7P 319003-96-8P 319004-18-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of orally active androgens)

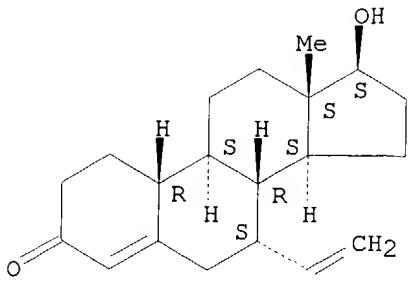
RN 293303-46-5 CAPLUS
CN Estr-4-en-3-one, 17-(acetyloxy)-7-ethenyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



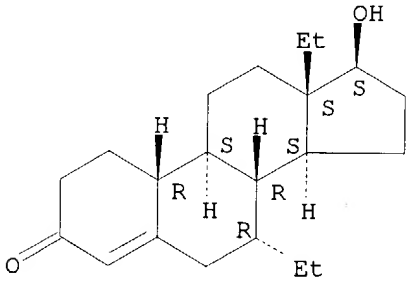
RN 293303-47-6 CAPLUS
CN Estr-4-en-3-one, 7-ethenyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



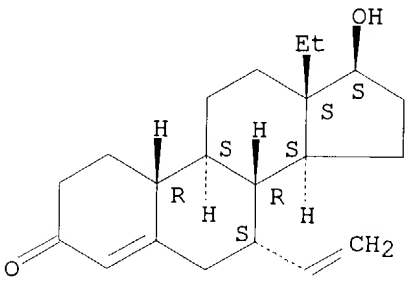
RN 300542-24-9 CAPLUS
CN Gon-4-en-3-one, 7,13-diethyl-17-hydroxy-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



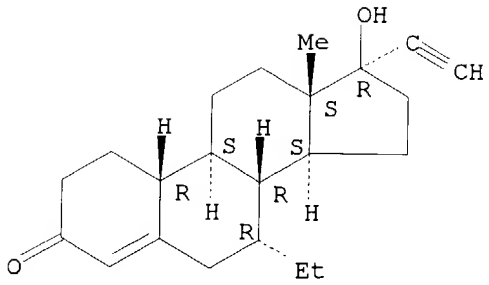
RN 300542-25-0 CAPLUS
CN Gon-4-en-3-one, 7-ethenyl-13-ethyl-17-hydroxy-, (7.alpha.,17.beta.)-(9CI)
(CA INDEX NAME)

Absolute stereochemistry.



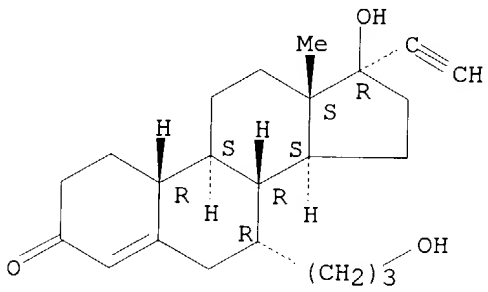
RN 319003-87-7 CAPLUS
CN 19-Norpregn-4-en-20-yn-3-one, 7-ethyl-17-hydroxy-, (7.alpha.,17.alpha.)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



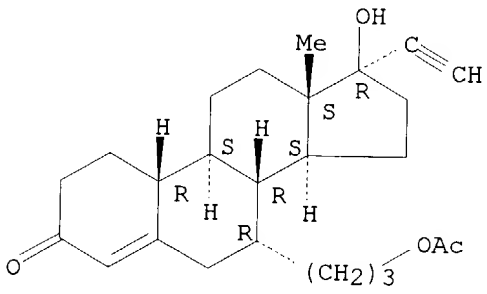
RN 319003-95-7 CAPLUS
CN 19-Norpregn-4-en-20-yn-3-one, 17-hydroxy-7-(3-hydroxypropyl)-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 319003-96-8 CAPLUS
CN 19-Norpregn-4-en-20-yn-3-one, 7-[3-(acetyloxy)propyl]-17-hydroxy-, (7.alpha.,17.alpha.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 319004-18-7 CAPLUS
CN Gon-4-en-3-one, 17-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7,13-diethyl-, (7.alpha.,17.beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.